



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

Analysis Report

REVISED

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 20, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/21/2010

Group Number: 1217424

SDG: DOE01

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

Client Sample Description

SL-122-SA5C-SS-0.0-0.5 Soil
SL-123-SA5C-SS-0.0-0.5 Soil
SL-125-SA5C-SS-0.0-0.5 Soil
SL-127-SA5C-SS-0.0-0.5 Soil
SL-128-SA5C-SS-0.0-0.5 Soil
SL-129-SA5C-SS-0.0-0.5 Soil
SL-130-SA5C-SS-0.0-0.5 Soil
SL-132-SA5C-SS-0.0-0.5 Soil
SL-133-SA5C-SS-0.0-0.5 Soil
SL-134-SA5C-SS-0.0-0.5 Soil
SL-135-SA5C-SS-0.0-0.5 Soil
SL-115-SA5C-SS-0.0-0.5 Soil
SL-116-SA5C-SS-0.0-0.5 Soil
SL-117-SA5C-SS-0.0-0.5 Soil
SL-120-SA5C-SS-0.0-0.5 Soil
SL-121-SA5C-SS-0.0-0.5 Soil

Lancaster Labs (LLI)

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

1 COPY TO
ELECTRONIC
COPY TO

Data Package Group
CDM Federal Services Program

Attn: Todd Burgess

REVISED

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

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist

Sample Description: SL-122-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SS-0.0-0.5

LLI Sample # SW 6118536
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 08:34

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL122 SDG#: DOE01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	74	U 74	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	28	J 18	370	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	74	U 74	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	21	J 18	180	1

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

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SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SS-0.0-0.5

LLI Sample # SW 6118536
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 08:34

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL122 SDG#: DOE01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.						
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.6	J 0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.8	J 0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.3	U 0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.3	J 0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.4	J 0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	7.3	J 6.6	20	1
10138	Chrysene	218-01-9	3.2	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Fluoranthene	206-44-0	4.0	U 0.74	1.8	1
10138	Fluorene	86-73-7	0.74	U 0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.96	J 0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.94	J 0.74	1.8	1
10138	Naphthalene	91-20-3	1.1	J 0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.75	J 0.74	1.8	1
10138	Phenanthrene	85-01-8	2.6	U 0.74	1.8	1
10138	Pyrene	129-00-0	3.4	U 0.74	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3	U 1.3	4.0	1
10401	Dalapon	75-99-0	4.9	U 4.9	9.9	1
10401	2,4-DB	94-82-6	6.2	U 0.68	1.9	1
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3	1
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9	1
10401	MCPA	94-74-6	84	U 84	280	1
10401	MCPP (Mecoprop)	93-65-2	83	U 83	280	1
10401	2,4,5-T	93-76-5	0.091	U 0.091	0.19	1
10401	2,4,5-TP	93-72-1	0.083	U 0.083	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Pesticides/PCBs **SW-846 8081A** **ug/kg** **ug/kg** **ug/kg**

Sample Description: SL-122-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SS-0.0-0.5

LLI Sample # SW 6118536
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Suite 210
Chantilly VA 20151

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL122 SDG#: DOE01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.073 U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.038 U	0.038	0.18	1
01363	Beta BHC	319-85-7	0.066 J	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.038 U	0.038	0.18	1
01363	Chlordane	57-74-9	3.4 U	3.4	3.8	1
01363	p,p-DDD	72-54-8	0.073 U	0.073	0.38	1
01363	p,p-DDE	72-55-9	1.2 U	1.2	1.2	1
01363	p,p-DDT	50-29-3	1.6 U	1.6	1.6	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.073 U	0.073	0.38	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.18	1
01363	Endosulfan II	33213-65-9	0.19 U	0.19	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.38	1
01363	Endrin	72-20-8	0.30 U	0.30	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.44 U	0.44	0.44	1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.38	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.50	0.038	0.18	1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.8	1
01363	Mirex	2385-85-5	0.073 U	0.073	0.38	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	4.2	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	11	0.36	1.9	1
10225	PCB-1260	11096-82-5	7.5	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	17,200	5.50	21.9	1
07914	Boron	7440-42-8	7.06	0.973	5.46	1
01650	Calcium	7440-70-2	3,180	6.70	21.9	1
01654	Iron	7439-89-6	18,100	5.15	21.9	1
01656	Lithium	7439-93-2	13.7	0.24	2.2	1

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

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SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SS-0.0-0.5

LLI Sample # SW 6118536
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Account # 13013

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SL122 SDG#: DOE01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	3,180	2.78	10.9	1
06958	Manganese	7439-96-5	650	0.0852	0.546	1
10145	Phosphorus	7723-14-0	224	0.612	10.9	1
01662	Potassium	7440-09-7	3,110	19.7	54.6	1
01667	Sodium	7440-23-5	83.0 J	40.8	109	1
07968	Strontium	7440-24-6	30.6	0.0678	0.546	1
06969	Tin	7440-31-5	2.20 J	1.09	10.9	1
06970	Titanium	7440-32-6	1,040	2.08	5.46	5
10146	Zirconium	7440-67-7	4.35 J	0.918	5.46	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.490	0.0662	0.221	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.28	0.0662	0.442	2
06126	Barium	7440-39-3	151	0.119	0.442	2
06127	Beryllium	7440-41-7	0.762	0.0177	0.110	2
06128	Cadmium	7440-43-9	0.383	0.0397	0.110	2
06131	Chromium	7440-47-3	28.3	0.132	0.442	2
06132	Cobalt	7440-48-4	8.23	0.0221	0.110	2
06133	Copper	7440-50-8	14.6	0.0728	0.442	2
06135	Lead	7439-92-1	22.1	0.0115	0.221	2
06138	Molybdenum	7439-98-7	1.22	0.0552	0.110	2
06139	Nickel	7440-02-0	16.6	0.110	0.442	2
06141	Selenium	7782-49-2	0.275 J	0.0442	0.442	2
06142	Silver	7440-22-4	0.0845 J	0.0132	0.110	2
06145	Thallium	7440-28-0	0.412	0.0331	0.110	2
06148	Vanadium	7440-62-2	52.7	0.0243	0.110	2
06149	Zinc	7440-66-6	67.1	0.618	3.31	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1 J	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.57 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	303	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

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SL122 SDG#: DOE01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	6.54	0.0100	0.0100	1
Wet Chemistry						
		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	9.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

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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	0.0577 U	0.0577	1.10	1
11031	12378-PeCDD	40321-76-4	0.284 JQ	0.0802	5.52	1
11031	123478-HxCDD	39227-28-6	0.425 JQ	0.181	5.52	1
11031	123678-HxCDD	57653-85-7	1.59 JBQ	0.187	5.52	1
11031	123789-HxCDD	19408-74-3	1.45 J	0.159	5.52	1
11031	1234678-HpCDD	35822-46-9	28.6 B	0.179	5.52	1
11031	OCDD	3268-87-9	396 B	0.183	11.0	1
11031	2378-TCDF	51207-31-9	0.604 JQ	0.283	1.10	1
11031	12378-PeCDF	57117-41-6	2.10 J	0.156	5.52	1
11031	23478-PeCDF	57117-31-4	1.02 JB	0.145	5.52	1
11031	123478-HxCDF	70648-26-9	0.480 JBQ	0.160	5.52	1
11031	123678-HxCDF	57117-44-9	0.599 J	0.148	5.52	1
11031	123789-HxCDF	72918-21-9	0.909 JB	0.140	5.52	1
11031	234678-HxCDF	60851-34-5	0.682 JB	0.136	5.52	1
11031	1234678-HpCDF	67562-39-4	4.84 JB	0.126	5.52	1
11031	1234789-HpCDF	55673-89-7	0.391 JB	0.135	5.52	1
11031	OCDF	39001-02-0	10.6 JB	0.110	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	90	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	87	26 - 138
13C12-OCDF	89	17 - 157
13C12-1278-TCDD (CRS)	91	35 - 197

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-122-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SS-0.0-0.5

LLI Sample # SW 6118536
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 08:34

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL122 SDG#: DOE01-01

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-122-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SS-0.0-0.5

LLI Sample # SW 6118536
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 08:34

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL122 SDG#: DOE01-01

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 20:19	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/02/2010 20:49	Barton C Conner	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 03:21	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 15:03	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/03/2010 22:30	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/26/2010 23:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 07:44	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 18:57	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 09:55	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2

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

Sample Description: SL-122-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SS-0.0-0.5

LLI Sample # SW 6118536
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 08:34

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL122 SDG#: DOE01-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 09:55	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 09:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 09:55	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:24	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 10:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 15:44	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/25/2010 19:44	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL123 SDG#: DOE01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	210	U 210	630	1
04688	Benidine	92-87-5	1,500	U 1,500	4,200	1
04688	Benzo(b)fluoranthene	205-99-2	22	J 21	210	1
04688	Benzoic acid	65-85-0	2,100	U 210	630	1
04688	Benzyl alcohol	100-51-6	210	U 210	630	1
04688	4-Bromophenyl-phenylether	101-55-3	21	U 21	210	1
04688	Butylbenzylphthalate	85-68-7	27	J 21	210	1
04688	Carbazole	86-74-8	21	U 21	210	1
04688	4-Chloro-3-methylphenol	59-50-7	42	U 42	210	1
04688	4-Chloroaniline	106-47-8	84	U 84	210	1
04688	bis(2-Chloroethoxy)methane	111-91-1	21	U 21	210	1
04688	bis(2-Chloroethyl)ether	111-44-4	21	U 21	210	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	21	U 21	210	1
04688	2-Chloronaphthalene	91-58-7	21	U 21	210	1
04688	2-Chlorophenol	95-57-8	21	U 21	210	1
04688	4-Chlorophenyl-phenylether	7005-72-3	42	U 42	210	1
04688	Chrysene	218-01-9	26	J 21	210	1
04688	Dibenzofuran	132-64-9	22	J 21	210	1
04688	1,2-Dichlorobenzene	95-50-1	21	U 21	210	1
04688	1,3-Dichlorobenzene	541-73-1	21	U 21	210	1
04688	1,4-Dichlorobenzene	106-46-7	21	U 21	210	1
04688	3,3'-Dichlorobenzidine	91-94-1	130	U 130	420	1
04688	2,4-Dichlorophenol	120-83-2	21	U 21	210	1
04688	2,4-Dimethylphenol	105-67-9	42	U 42	210	1
04688	3,5-Dimethylphenol	108-68-9	42	U 42	210	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	210	U 210	630	1
04688	2,4-Dinitrophenol	51-28-5	840	U 840	2,500	1
04688	2,4-Dinitrotoluene	121-14-2	42	U 42	210	1
04688	2,6-Dinitrotoluene	606-20-2	21	U 21	210	1
04688	1,2-Diphenylhydrazine	122-66-7	21	U 21	210	1
04688	Hexachlorobenzene	118-74-1	21	U 21	210	1
04688	Hexachlorobutadiene	87-68-3	84	U 84	210	1
04688	Hexachlorocyclopentadiene	77-47-4	210	U 210	630	1
04688	Hexachloroethane	67-72-1	21	U 21	210	1
04688	Isophorone	78-59-1	21	U 21	210	1
04688	1-Methylnaphthalene	90-12-0	51	J 21	210	1
04688	2-Methylnaphthalene	91-57-6	49	J 21	210	1
04688	2-Methylphenol	95-48-7	42	U 42	210	1
04688	4-Methylphenol	106-44-5	42	U 42	210	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	21	U 21	210	1
04688	3-Nitroaniline	99-09-2	42	U 42	210	1
04688	4-Nitroaniline	100-01-6	84	U 84	210	1
04688	Nitrobenzene	98-95-3	21	U 21	210	1
04688	2-Nitrophenol	88-75-5	21	U 21	210	1
04688	4-Nitrophenol	100-02-7	210	U 210	630	1
04688	N-Nitroso-di-n-propylamine	621-64-7	21	U 21	210	1
04688	N-Nitrosodiphenylamine	86-30-6	21	U 21	210	1

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

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL123 SDG#: DOE01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	210	U	210	630
04688	Phenanthrene	85-01-8	89	J	21	210
04688	Phenol	108-95-2	21	U	21	210
04688	Pyrene	129-00-0	34	J	21	210
04688	1,2,4-Trichlorobenzene	120-82-1	21	U	21	210
04688	2,4,5-Trichlorophenol	95-95-4	42	U	42	210
04688	2,4,6-Trichlorophenol	88-06-2	42	U	42	210
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.84	U	0.84	2.1
10138	Acenaphthylene	208-96-8	0.60	J	0.42	2.1
10138	Anthracene	120-12-7	3.0		0.42	2.1
10138	Benzo(a)anthracene	56-55-3	3.9		0.84	2.1
10138	Benzo(a)pyrene	50-32-8	6.6		0.84	2.1
10138	Benzo(g,h,i)perylene	191-24-2	3.7		0.84	2.1
10138	Benzo(k)fluoranthene	207-08-9	4.2		0.84	2.1
10138	Di-n-butylphthalate	84-74-2	13	J	7.6	23
10138	Dibenz(a,h)anthracene	53-70-3	1.7	J	0.84	2.1
10138	Diethylphthalate	84-66-2	7.6	U	7.6	23
10138	Dimethylphthalate	131-11-3	7.6	U	7.6	23
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	620		38	110
10138	Fluoranthene	206-44-0	12		0.84	2.1
10138	Fluorene	86-73-7	0.84	U	0.84	2.1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	2.2		0.84	2.1
10138	Naphthalene	91-20-3	4.1		0.84	2.1
10138	N-Nitrosodimethylamine	62-75-9	2.7		0.84	2.1
10138	Di-n-octylphthalate	117-84-0	14	J	7.6	23
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.5	U	1.5	4.5
10401	Dalapon	75-99-0	5.5	U	5.5	11
10401	2,4-DB	94-82-6	5.7		0.78	2.1
10401	Dicamba	1918-00-9	0.50	U	0.50	1.5
10401	Dinoseb	88-85-7	1.0	U	1.0	3.0
10401	2,4-DP (Dichlorprop)	120-36-5	1.0	U	1.0	2.1
10401	MCPA	94-74-6	96	U	96	310
10401	MCPP (Mecoprop)	93-65-2	94	U	94	310
10401	2,4,5-T	93-76-5	0.10	U	0.10	0.21
10401	2,4,5-TP	93-72-1	0.094	U	0.094	0.21
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.083	U	0.083	0.21
01363	Alpha BHC	319-84-6	0.043	U	0.043	0.21

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

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL123 SDG#: DOE01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A						
01363	Beta BHC	319-85-7	0.076 U	0.076	0.21	1
01363	Gamma BHC - Lindane	58-89-9	0.043 U	0.043	0.21	1
01363	Chlordane	57-74-9	1.0 U	1.0	4.3	1
01363	p,p-DDD	72-54-8	0.083 U	0.083	0.43	1
01363	p,p-DDE	72-55-9	0.53 U	0.53	0.53	1
01363	p,p-DDT	50-29-3	1.3 U	1.3	1.3	1
01363	Delta BHC	319-86-8	0.074 J	0.045	0.21	1
01363	Dieldrin	60-57-1	0.083 U	0.083	0.43	1
01363	Endosulfan I	959-98-8	0.055 U	0.055	0.21	1
01363	Endosulfan II	33213-65-9	0.58 U	0.58	0.58	1
01363	Endosulfan Sulfate	1031-07-8	0.37 U	0.37	0.43	1
01363	Endrin	72-20-8	0.14 U	0.14	0.43	1
01363	Endrin Aldehyde	7421-93-4	0.23 U	0.23	0.43	1
01363	Endrin Ketone	53494-70-5	0.27 U	0.27	0.43	1
01363	Heptachlor	76-44-8	0.076 U	0.076	0.21	1
01363	Heptachlor Epoxide	1024-57-3	0.058 U	0.058	0.21	1
01363	Methoxychlor	72-43-5	0.84 U	0.84	2.1	1
01363	Mirex	2385-85-5	0.44 U	0.44	0.44	1
01363	Toxaphene	8001-35-2	2.8 U	2.8	8.3	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.3 U	1.3	4.2	1
10225	Aroclor 5442	12642-23-8	1.3 U	1.3	4.2	1
10225	Aroclor 5460	11126-42-4	5.3	1.3	4.2	1
10225	PCB-1016	12674-11-2	0.42 U	0.42	2.1	1
10225	PCB-1221	11104-28-2	0.63 U	0.63	2.1	1
10225	PCB-1232	11141-16-5	0.65 U	0.65	2.1	1
10225	PCB-1242	53469-21-9	0.63 U	0.63	2.1	1
10225	PCB-1248	12672-29-6	0.42 U	0.42	2.1	1
10225	PCB-1254	11097-69-1	13	0.42	2.1	1
10225	PCB-1260	11096-82-5	8.0	0.42	2.1	1
10225	PCB-1262	37324-23-5	0.42 U	0.42	2.1	1
10225	PCB-1268	11100-14-4	0.42 U	0.42	2.1	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	14,400	6.21	24.7	1
07914	Boron	7440-42-8	7.21	1.10	6.17	1
01650	Calcium	7440-70-2	14,200	7.57	24.7	1
01654	Iron	7439-89-6	17,400	5.82	24.7	1
01656	Lithium	7439-93-2	18.1	0.27	2.5	1

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

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL123 SDG#: DOE01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	3,260	3.14	12.3	1
06958	Manganese	7439-96-5	180	0.0963	0.617	1
10145	Phosphorus	7723-14-0	219	0.691	12.3	1
01662	Potassium	7440-09-7	1,710	22.2	61.7	1
01667	Sodium	7440-23-5	80.5 J	46.1	123	1
07968	Strontium	7440-24-6	34.6	0.0766	0.617	1
06969	Tin	7440-31-5	2.73 J	1.23	12.3	1
06970	Titanium	7440-32-6	834	0.469	1.23	1
10146	Zirconium	7440-67-7	3.61 J	1.04	6.17	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.655	0.0727	0.242	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.15	0.0727	0.484	2
06126	Barium	7440-39-3	139	0.131	0.484	2
06127	Beryllium	7440-41-7	0.680	0.0194	0.121	2
06128	Cadmium	7440-43-9	0.722	0.0436	0.121	2
06131	Chromium	7440-47-3	30.2	0.145	0.484	2
06132	Cobalt	7440-48-4	6.50	0.0242	0.121	2
06133	Copper	7440-50-8	27.8	0.0799	0.484	2
06135	Lead	7439-92-1	24.6	0.0126	0.242	2
06138	Molybdenum	7439-98-7	0.901	0.0606	0.121	2
06139	Nickel	7440-02-0	21.6	0.121	0.484	2
06141	Selenium	7782-49-2	0.172 J	0.0484	0.484	2
06142	Silver	7440-22-4	0.198	0.0145	0.121	2
06145	Thallium	7440-28-0	0.229	0.0363	0.121	2
06148	Vanadium	7440-62-2	43.4	0.0266	0.121	2
06149	Zinc	7440-66-6	254	1.70	9.08	5
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0279 J	0.0035	0.121	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2 J	1.0	1.3	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	11.3 U	11.3	37.8	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.43 J	0.25	1.3	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	318	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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



Analysis Report

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Page 5 of 9

REVISED

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL123 SDG#: DOE01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.38	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	20.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

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

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL123 SDG#: DOE01-02

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	0.664 J	0.452	1.26	1
11031	12378-PeCDD	40321-76-4	7.94	0.795	6.30	1
11031	123478-HxCDD	39227-28-6	13.4	0.668	6.30	1
11031	123678-HxCDD	57653-85-7	86.8 B	0.680	6.30	1
11031	123789-HxCDD	19408-74-3	35.3	0.582	6.30	1
11031	1234678-HpCDD	35822-46-9	1,730 B	0.668	6.30	1
11031	OCDD	3268-87-9	14,800 EB	0.932	12.6	1
11031	2378-TCDF	51207-31-9	0.412 JQ	0.154	1.26	1
11031	12378-PeCDF	57117-41-6	1.86 J	0.166	6.30	1
11031	23478-PeCDF	57117-31-4	2.33 JB	0.154	6.30	1
11031	123478-HxCDF	70648-26-9	4.45 JB	0.433	6.30	1
11031	123678-HxCDF	57117-44-9	4.51 J	0.418	6.30	1
11031	123789-HxCDF	72918-21-9	1.16 JBQ	0.372	6.30	1
11031	234678-HxCDF	60851-34-5	8.54 B	0.384	6.30	1
11031	1234678-HpCDF	67562-39-4	141 B	0.385	6.30	1
11031	1234789-HpCDF	55673-89-7	10.7 B	0.391	6.30	1
11031	OCDF	39001-02-0	333 B	0.348	12.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	93	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	92	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	91	26 - 138

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

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL123 SDG#: DOE01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Labeled Compounds						
		%Rec	Windows			
	13C12-OCDF	82	17 - 157			
	13C12-1278-TCDD (CRS)	92	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
- F Interference is present
- S Saturation of detection signal

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL123 SDG#: DOE01-02

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 20:45	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 09:37	Joseph M Gambler	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/09/2010 04:42	Gregory J Drahovsky	5
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 03:48	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 15:32	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/03/2010 23:26	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 00:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:08	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:14	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2

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

Sample Description: SL-123-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-123-SA5C-SS-0.0-0.5

LLI Sample # SW 6118537
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 15:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL123 SDG#: DOE01-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:14	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:14	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:14	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 16:53	Choon Y Tian	5
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:25	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 10:46	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 16:56	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/25/2010 21:04	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL125 SDG#: DOE01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzo(a)anthracene	92-87-5	1,200	U 1,200	3,500	1
04688	Benzo(a)pyrene	56-55-3	19	J 18	180	1
04688	Benzo(g,h,i)perylene	50-32-8	18	J 18	180	1
04688	Benzoic acid	191-24-2	24	J 18	180	1
04688	Benzyl alcohol	65-85-0	180	U 180	530	1
04688	4-Bromophenyl-phenylether	100-51-6	180	U 180	530	1
04688	Butylbenzylphthalate	101-55-3	18	U 18	180	1
04688	Carbazole	85-68-7	24	J 18	180	1
04688	4-Chloro-3-methylphenol	86-74-8	18	U 18	180	1
04688	4-Chloroaniline	59-50-7	35	U 35	180	1
04688	bis(2-Chloroethoxy)methane	106-47-8	70	U 70	180	1
04688	bis(2-Chloroethyl)ether	111-91-1	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	111-44-4	18	U 18	180	1
04688	2-Chloronaphthalene	39638-32-9	18	U 18	180	1
04688	2-Chlorophenol	91-58-7	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	95-57-8	18	U 18	180	1
04688	Dibenzofuran	7005-72-3	35	U 35	180	1
04688	1,2-Dichlorobenzene	132-64-9	18	U 18	180	1
04688	1,3-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	106-46-7	18	U 18	180	1
04688	2,4-Dichlorophenol	91-94-1	110	U 110	350	1
04688	2,4-Dimethylphenol	120-83-2	18	U 18	180	1
04688	3,5-Dimethylphenol	105-67-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	108-68-9	35	U 35	180	1
04688	2,4-Dinitrophenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrotoluene	51-28-5	700	U 700	2,100	1
04688	2,6-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	1,2-Diphenylhydrazine	606-20-2	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	117-81-7	43	J 18	350	1
04688	Hexachlorobutadiene	118-74-1	18	U 18	180	1
04688	Hexachlorocyclopentadiene	87-68-3	70	U 70	180	1
04688	Hexachloroethane	77-47-4	180	U 180	530	1
04688	Indeno(1,2,3-cd)pyrene	67-72-1	18	U 18	180	1
04688	Isophorone	193-39-5	19	J 18	180	1
04688	2-Methylphenol	78-59-1	18	U 18	180	1
04688	4-Methylphenol	95-48-7	35	U 35	180	1
04688	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.	106-44-5	35	U 35	180	1
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	70	U 70	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1

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

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL125 SDG#: DOE01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	35	J 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180	1
	Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.					

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	3.5	U 3.5	8.8	5
10138	Acenaphthylene	208-96-8	3.8	J 1.8	8.8	5
10138	Anthracene	120-12-7	8.9	1.8	8.8	5
10138	Benzo(b)fluoranthene	205-99-2	50	3.5	8.8	5
10138	Benzo(k)fluoranthene	207-08-9	14	3.5	8.8	5
10138	Di-n-butylphthalate	84-74-2	32	U 32	95	5
10138	Chrysene	218-01-9	56	1.8	8.8	5
10138	Dibenz(a,h)anthracene	53-70-3	3.5	U 3.5	8.8	5
10138	Diethylphthalate	84-66-2	32	U 32	95	5
10138	Dimethylphthalate	131-11-3	32	U 32	95	5
10138	Fluoranthene	206-44-0	250	3.5	8.8	5
10138	Fluorene	86-73-7	3.5	U 3.5	8.8	5
10138	1-Methylnaphthalene	90-12-0	3.5	U 3.5	8.8	5
10138	2-Methylnaphthalene	91-57-6	3.5	U 3.5	8.8	5
10138	Naphthalene	91-20-3	5.5	J 3.5	8.8	5
10138	N-Nitrosodimethylamine	62-75-9	3.5	U 3.5	8.8	5
10138	Phenanthrene	85-01-8	92	3.5	8.8	5
10138	Pyrene	129-00-0	130	3.5	8.8	5

Reporting limits were raised due to interference from the sample matrix.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U	1.3	3.8	1
10401	Dalapon	75-99-0	4.6	U	4.6	9.5	1
10401	2,4-DB	94-82-6	7.4		0.65	1.8	1
10401	Dicamba	1918-00-9	0.42	U	0.42	1.3	1
10401	Dinoseb	88-85-7	0.90	J	0.84	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.84	U	0.84	1.8	1
10401	MCPA	94-74-6	1,100		80	260	1
10401	MCPP (Mecoprop)	93-65-2	79	U	79	260	1
10401	2,4,5-T	93-76-5	0.086	U	0.086	0.18	1
10401	2,4,5-TP	93-72-1	0.079	U	0.079	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL125 SDG#: DOE01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.17	1
01363	Beta BHC	319-85-7	0.065 J	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.17	1
01363	Chlordane	57-74-9	4.0 U	4.0	4.0	1
01363	p,p-DDD	72-54-8	0.98 U	0.98	0.98	1
01363	p,p-DDE	72-55-9	0.60 U	0.60	0.60	1
01363	p,p-DDT	50-29-3	2.4 U	2.4	2.4	1
01363	Delta BHC	319-86-8	0.038 U	0.038	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.36	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.099 U	0.099	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.36	1
01363	Endrin	72-20-8	0.093 U	0.093	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.30 U	0.30	0.36	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.36	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.17	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.7	1
01363	Mirex	2385-85-5	0.62 U	0.62	0.62	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.9	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.8 J	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.53 U	0.53	1.8	1
10225	PCB-1232	11141-16-5	0.55 U	0.55	1.8	1
10225	PCB-1242	53469-21-9	0.53 U	0.53	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	2.8	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.0	0.35	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,000	5.19	20.6	1
07914	Boron	7440-42-8	8.18	0.918	5.15	1
01650	Calcium	7440-70-2	3,600	6.32	20.6	1

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

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL125 SDG#: DOE01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	20,300	4.86	20.6	1
01656	Lithium	7439-93-2	15.8	0.23	2.1	1
01657	Magnesium	7439-95-4	4,370	2.62	10.3	1
06958	Manganese	7439-96-5	338	0.0804	0.515	1
10145	Phosphorus	7723-14-0	415	0.577	10.3	1
01662	Potassium	7440-09-7	3,970	18.6	51.5	1
01667	Sodium	7440-23-5	109	38.5	103	1
07968	Strontium	7440-24-6	26.0	0.0639	0.515	1
06969	Tin	7440-31-5	2.12 J	1.03	10.3	1
06970	Titanium	7440-32-6	1,190	1.96	5.15	5
10146	Zirconium	7440-67-7	3.44 J	0.866	5.15	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.220	0.0607	0.202	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.42	0.0607	0.404	2
06126	Barium	7440-39-3	146	0.109	0.404	2
06127	Beryllium	7440-41-7	0.620	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.373	0.0364	0.101	2
06131	Chromium	7440-47-3	27.8	0.121	0.404	2
06132	Cobalt	7440-48-4	10.3	0.0202	0.101	2
06133	Copper	7440-50-8	14.8	0.0667	0.404	2
06135	Lead	7439-92-1	14.7	0.0105	0.202	2
06138	Molybdenum	7439-98-7	0.802	0.0506	0.101	2
06139	Nickel	7440-02-0	17.4	0.101	0.404	2
06141	Selenium	7782-49-2	0.138 J	0.0404	0.404	2
06142	Silver	7440-22-4	0.0492 J	0.0121	0.101	2
06145	Thallium	7440-28-0	0.359	0.0303	0.101	2
06148	Vanadium	7440-62-2	56.3	0.0222	0.101	2
06149	Zinc	7440-66-6	97.8	0.566	3.03	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0155 J	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.84	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.53 J	0.21	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	344	10.0	10.0	1

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

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL125 SDG#: DOE01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	ASTM D1498		mV	mV	mV	
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	6.44	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	28a Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
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Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL125 SDG#: DOE01-03

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	0.285 J	0.0742	1.05	1
11031	12378-PeCDD	40321-76-4	4.05 J	0.273	5.26	1
11031	123478-HxCDD	39227-28-6	11.8	0.408	5.26	1
11031	123678-HxCDD	57653-85-7	91.3 B	0.434	5.26	1
11031	123789-HxCDD	19408-74-3	34.8	0.407	5.26	1
11031	1234678-HpCDD	35822-46-9	2,830 EB	1.08	5.26	1
11031	OCDD	3268-87-9	71,200 EB	2.63	10.5	1
11031	2378-TCDF	51207-31-9	0.499 JQ	0.120	1.05	1
11031	12378-PeCDF	57117-41-6	2.04 J	0.124	5.26	1
11031	23478-PeCDF	57117-31-4	3.35 JB	0.107	5.26	1
11031	123478-HxCDF	70648-26-9	12.3 B	0.311	5.26	1
11031	123678-HxCDF	57117-44-9	2.41 J	0.335	5.26	1
11031	123789-HxCDF	72918-21-9	4.20 JB	0.380	5.26	1
11031	234678-HxCDF	60851-34-5	4.43 JB	0.328	5.26	1
11031	1234678-HpCDF	67562-39-4	148 B	0.372	5.26	1
11031	1234789-HpCDF	55673-89-7	7.92 BQ	0.460	5.26	1
11031	OCDF	39001-02-0	1,000 B	0.777	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	51	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	60	28 - 143

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

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL125 SDG#: DOE01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Labeled Compounds						
		%Rec	Windows			
	13C12-1234789-HpCDF	59	26 - 138			
	13C12-0CDF	44	17 - 157			
	13C12-1278-TCDD (CRS)	90	35 - 197			

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

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Chantilly VA 20151

SL125 SDG#: DOE01-03

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 21:13	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 10:12	Joseph M Gambler	5
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 05:11	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 15:47	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/03/2010 23:45	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 01:31	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 07:47	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:12	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 11:14	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2

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

Sample Description: SL-125-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-125-SA5C-SS-0.0-0.5

LLI Sample # SW 6118538
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 08:35

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL125 SDG#: DOE01-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 11:14	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 11:14	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 11:14	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:26	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 11:02	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 17:20	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10297243201A	10/25/2010 21:44	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL127 SDG#: DOE01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	31	J 19	380	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	20	J 19	190	1

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

Sample Description: SL-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL127 SDG#: DOE01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Pentachlorophenol	87-86-5	190 U	190	570	1
04688	Phenol	108-95-2	19 U	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.						
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.76 U	0.76	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.76 U	0.76	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	1.6 J	0.76	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.76 U	0.76	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.76 U	0.76	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	21	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	21	1
10138	Chrysene	218-01-9	0.85 J	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.76 U	0.76	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	21	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	21	1
10138	Fluoranthene	206-44-0	0.83 J	0.76	1.9	1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76 U	0.76	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9	1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	1.8 J	0.76	1.9	1
10138	Phenanthrene	85-01-8	0.76 U	0.76	1.9	1
10138	Pyrene	129-00-0	0.76 U	0.76	1.9	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.4 U	1.4	4.1	1
10401	Dalapon	75-99-0	5.0 U	5.0	10	1
10401	2,4-DB	94-82-6	4.4 U	4.4	4.4	1
10401	Dicamba	1918-00-9	0.46 U	0.46	1.4	1
10401	Dinoseb	88-85-7	0.91 U	0.91	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.91 U	0.91	1.9	1
10401	MCPA	94-74-6	720 U	87	290	1
10401	MCPP (Mecoprop)	93-65-2	86 U	86	290	1
10401	2,4,5-T	93-76-5	0.094 U	0.094	0.19	1
10401	2,4,5-TP	93-72-1	0.086 U	0.086	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the

Sample Description: SL-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL127 SDG#: DOE01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.075 U	0.075	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.068 U	0.068	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19	1
01363	Chlordane	57-74-9	0.91 U	0.91	3.9	1
01363	p,p-DDD	72-54-8	0.075 U	0.075	0.39	1
01363	p,p-DDE	72-55-9	0.12 U	0.12	0.39	1
01363	p,p-DDT	50-29-3	0.12 U	0.12	0.39	1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19	1
01363	Dieldrin	60-57-1	0.075 U	0.075	0.39	1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19	1
01363	Endosulfan II	33213-65-9	0.075 U	0.075	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.075 U	0.075	0.39	1
01363	Endrin	72-20-8	0.075 U	0.075	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.092 U	0.092	0.39	1
01363	Endrin Ketone	53494-70-5	0.075 U	0.075	0.39	1
01363	Heptachlor	76-44-8	0.068 U	0.068	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.039 U	0.039	0.19	1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9	1
01363	Mirex	2385-85-5	0.19 U	0.19	0.39	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.5	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.57 U	0.57	1.9	1
10225	PCB-1232	11141-16-5	0.59 U	0.59	1.9	1
10225	PCB-1242	53469-21-9	0.57 U	0.57	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.80 J	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.39 J	0.38	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,100	5.51	21.9	1
07914	Boron	7440-42-8	8.18	0.976	5.48	1

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

Sample Description: SL-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL127 SDG#: DOE01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01650	Calcium	7440-70-2	3,110	6.72	21.9	1
01654	Iron	7439-89-6	20,800	5.16	21.9	1
01656	Lithium	7439-93-2	15.2	0.24	2.2	1
01657	Magnesium	7439-95-4	4,260	2.78	11.0	1
06958	Manganese	7439-96-5	503	0.0855	0.548	1
10145	Phosphorus	7723-14-0	218	0.614	11.0	1
01662	Potassium	7440-09-7	4,370	19.7	54.8	1
01667	Sodium	7440-23-5	95.9 J	40.9	110	1
07968	Strontium	7440-24-6	26.7	0.0680	0.548	1
06969	Tin	7440-31-5	2.39 J	1.10	11.0	1
06970	Titanium	7440-32-6	1,300	2.08	5.48	5
10146	Zirconium	7440-67-7	3.69 J	0.921	5.48	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.369	0.0664	0.221	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.56	0.0664	0.443	2
06126	Barium	7440-39-3	156	0.120	0.443	2
06127	Beryllium	7440-41-7	0.829	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.463	0.0399	0.111	2
06131	Chromium	7440-47-3	33.0	0.133	0.443	2
06132	Cobalt	7440-48-4	10.6	0.0221	0.111	2
06133	Copper	7440-50-8	18.3	0.0731	0.443	2
06135	Lead	7439-92-1	11.7	0.0115	0.221	2
06138	Molybdenum	7439-98-7	1.21	0.0554	0.111	2
06139	Nickel	7440-02-0	22.2	0.111	0.443	2
06141	Selenium	7782-49-2	0.354 J	0.0443	0.443	2
06142	Silver	7440-22-4	0.0336 J	0.0133	0.111	2
06145	Thallium	7440-28-0	0.435	0.0332	0.111	2
06148	Vanadium	7440-62-2	64.1	0.0244	0.111	2
06149	Zinc	7440-66-6	72.2	0.620	3.32	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0092 J	0.0031	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.6	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.8 J	10.3	34.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.80 J	0.23	1.1	1
	ASTM D1498		mV	mV	mV	

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

Sample Description: SL-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL127 SDG#: DOE01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	331	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	6.67	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	12.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

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Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL127 SDG#: DOE01-04

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	0.0522 U	0.0522	1.14	1
11031	12378-PeCDD	40321-76-4	0.415 JQ	0.0650	5.70	1
11031	123478-HxCDD	39227-28-6	0.494 J	0.152	5.70	1
11031	123678-HxCDD	57653-85-7	1.77 JB	0.159	5.70	1
11031	123789-HxCDD	19408-74-3	1.82 J	0.149	5.70	1
11031	1234678-HpCDD	35822-46-9	26.9 B	0.218	5.70	1
11031	OCDD	3268-87-9	511 B	0.266	11.4	1
11031	2378-TCDF	51207-31-9	0.0640 U	0.0640	1.14	1
11031	12378-PeCDF	57117-41-6	0.176 JQ	0.0521	5.70	1
11031	23478-PeCDF	57117-31-4	0.172 JBQ	0.0477	5.70	1
11031	123478-HxCDF	70648-26-9	0.204 JBQ	0.0823	5.70	1
11031	123678-HxCDF	57117-44-9	0.123 JQ	0.0780	5.70	1
11031	123789-HxCDF	72918-21-9	1.19 JB	0.0900	5.70	1
11031	234678-HxCDF	60851-34-5	0.553 JBQ	0.0764	5.70	1
11031	1234678-HpCDF	67562-39-4	2.10 JB	0.0976	5.70	1
11031	1234789-HpCDF	55673-89-7	0.126 JB	0.125	5.70	1
11031	OCDF	39001-02-0	6.36 JB	0.152	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	94	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	92	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	82	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-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL127 SDG#: DOE01-04

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-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL127 SDG#: DOE01-04

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 21:39	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 10:45	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 06:33	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 16:17	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 00:03	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 02:31	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 07:50	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:16	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:26	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2

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

Sample Description: SL-127-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA5C-SS-0.0-0.5

LLI Sample # SW 6118539
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 09:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL127 SDG#: DOE01-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:26	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:26	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 10:26	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:27	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 11:17	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 17:45	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/25/2010 21:51	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL128 SDG#: DOE01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,600	1
04688	Benzo(a)anthracene	56-55-3	38	J 18	180	1
04688	Benzo(a)pyrene	50-32-8	41	J 18	180	1
04688	Benzo(b)fluoranthene	205-99-2	76	J 18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	63	J 18	180	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Chrysene	218-01-9	45	J 18	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	710	U 710	2,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	56	J 18	360	1
04688	Fluoranthene	206-44-0	44	J 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	57	J 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1

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

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL128 SDG#: DOE01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	25	J 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.75	J 0.36	1.8	1
10138	Anthracene	120-12-7	1.9	0.36	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	10	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4	U 6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19	1
10138	Dibenz(a,h)anthracene	53-70-3	3.4	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Fluorene	86-73-7	0.71	U 0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	1.1	J 0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	1.6	J 0.71	1.8	1
10138	Naphthalene	91-20-3	1.3	J 0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	15	0.71	1.8	1
10138	Phenanthrene	85-01-8	8.4	0.71	1.8	1
10138	Pyrene	129-00-0	9.7	0.71	1.8	1
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.3	U 1.3	3.9	1
10401	Dalapon	75-99-0	4.7	U 4.7	9.6	1
10401	2,4-DB	94-82-6	0.66	U 0.66	1.8	1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3	1
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8	1
10401	MCPA	94-74-6	81	U 81	270	1
10401	MCPP (Mecoprop)	93-65-2	80	U 80	270	1
10401	2,4,5-T	93-76-5	0.088	U 0.088	0.18	1
10401	2,4,5-TP	93-72-1	0.38	0.080	0.18	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs SW-846 8081A						
			ug/kg	ug/kg	ug/kg	

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

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL128 SDG#: DOE01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.66	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	13 U	13	13	1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.36	1
01363	p,p-DDE	72-55-9	1.8 U	1.8	1.8	1
01363	p,p-DDT	50-29-3	5.5 U	5.5	5.5	5
01363	Delta BHC	319-86-8	0.25	0.039	0.18	1
01363	Dieldrin	60-57-1	0.071 U	0.071	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.44 U	0.44	0.44	1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.36	1
01363	Endrin	72-20-8	0.48 U	0.48	0.48	1
01363	Endrin Aldehyde	7421-93-4	0.84 U	0.84	0.84	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.36 U	0.36	0.36	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.071 U	0.071	0.36	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	11 U	11	35	10
10225	Aroclor 5442	12642-23-8	11 U	11	35	10
10225	Aroclor 5460	11126-42-4	17 J	11	35	10
10225	PCB-1016	12674-11-2	3.5 U	3.5	18	10
10225	PCB-1221	11104-28-2	5.4 U	5.4	18	10
10225	PCB-1232	11141-16-5	5.6 U	5.6	18	10
10225	PCB-1242	53469-21-9	5.4 U	5.4	18	10
10225	PCB-1248	12672-29-6	3.5 U	3.5	18	10
10225	PCB-1254	11097-69-1	70	3.5	18	10
10225	PCB-1260	11096-82-5	37	3.5	18	10
10225	PCB-1262	37324-23-5	3.5 U	3.5	18	10
10225	PCB-1268	11100-14-4	3.5 U	3.5	18	10

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,400	5.33	21.2	1
07914	Boron	7440-42-8	8.19	0.943	5.30	1
01650	Calcium	7440-70-2	4,150	6.50	21.2	1
01654	Iron	7439-89-6	20,900	4.99	21.2	1
01656	Lithium	7439-93-2	27.5	0.23	2.1	1

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

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL128 SDG#: DOE01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	4,830	2.69	10.6	1
06958	Manganese	7439-96-5	328	0.0827	0.530	1
10145	Phosphorus	7723-14-0	417	0.594	10.6	1
01662	Potassium	7440-09-7	3,220	19.1	53.0	1
01667	Sodium	7440-23-5	80.5 J	39.5	106	1
07968	Strontium	7440-24-6	23.2	0.0657	0.530	1
06969	Tin	7440-31-5	2.93 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,120	2.01	5.30	5
10146	Zirconium	7440-67-7	4.07 J	0.890	5.30	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.318	0.0636	0.212	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	10.4	0.0636	0.424	2
06126	Barium	7440-39-3	183	0.114	0.424	2
06127	Beryllium	7440-41-7	0.765	0.0170	0.106	2
06128	Cadmium	7440-43-9	0.742	0.0382	0.106	2
06131	Chromium	7440-47-3	35.7	0.127	0.424	2
06132	Cobalt	7440-48-4	7.93	0.0212	0.106	2
06133	Copper	7440-50-8	34.0	0.0700	0.424	2
06135	Lead	7439-92-1	19.8	0.0110	0.212	2
06138	Molybdenum	7439-98-7	0.698	0.0530	0.106	2
06139	Nickel	7440-02-0	21.1	0.106	0.424	2
06141	Selenium	7782-49-2	0.237 J	0.0424	0.424	2
06142	Silver	7440-22-4	13.3	0.0127	0.106	2
06145	Thallium	7440-28-0	0.376	0.0318	0.106	2
06148	Vanadium	7440-62-2	51.3	0.0233	0.106	2
06149	Zinc	7440-66-6	147	0.594	3.18	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.142	0.0029	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.86	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.1	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
ASTM D1498						
	mV		mV	mV		
01821	Oxidation Reduction Potential	n.a.	343	10.0	10.0	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						

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

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL128 SDG#: DOE01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.08	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL128 SDG#: DOE01-05

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	0.213 JQ	0.164	1.07	1
11031	12378-PeCDD	40321-76-4	2.25 J	0.332	5.35	1
11031	123478-HxCDD	39227-28-6	5.73	0.384	5.35	1
11031	123678-HxCDD	57653-85-7	28.1 B	0.408	5.35	1
11031	123789-HxCDD	19408-74-3	12.0	0.393	5.35	1
11031	1234678-HpCDD	35822-46-9	797 B	0.622	5.35	1
11031	OCDD	3268-87-9	11,100 EB	0.858	10.7	1
11031	2378-TCDF	51207-31-9	0.860 JQ	0.460	1.07	1
11031	12378-PeCDF	57117-41-6	3.30 J	0.258	5.35	1
11031	23478-PeCDF	57117-31-4	1.98 JBQ	0.243	5.35	1
11031	123478-HxCDF	70648-26-9	3.48 JB	0.357	5.35	1
11031	123678-HxCDF	57117-44-9	3.51 J	0.339	5.35	1
11031	123789-HxCDF	72918-21-9	1.19 JB	0.331	5.35	1
11031	234678-HxCDF	60851-34-5	6.18 B	0.329	5.35	1
11031	1234678-HpCDF	67562-39-4	94.3 B	0.313	5.35	1
11031	1234789-HpCDF	55673-89-7	17.4 B	0.391	5.35	1
11031	OCDF	39001-02-0	248 B	0.232	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	98	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	114	17 - 157
13C12-2378-TCDF	82	24 - 169
13C12-12378-PeCDF	90	24 - 185
13C12-23478-PeCDF	97	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	96	29 - 147
13C12-1234678-HpCDF	88	28 - 143

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

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL128 SDG#: D0E01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Labeled Compounds						
		%Rec	Windows			
	13C12-1234789-HpCDF	92	26 - 138			
	13C12-0CDF	98	17 - 157			
	13C12-1278-TCDD (CRS)	97	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
- F Interference is present
- S Saturation of detection signal

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL128 SDG#: DOE01-05

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 19:02	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 11:20	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 07:01	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 17:01	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 17:16	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 00:22	Richard A Shober	10
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 07:28	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 07:54	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:20	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:30	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2

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

Sample Description: SL-128-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-128-SA5C-SS-0.0-0.5

LLI Sample # SW 6118540
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 13:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL128 SDG#: DOE01-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:30	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:30	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 10:30	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:28	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 11:32	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 18:09	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/25/2010 22:07	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL129 SDG#: DOE01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzo(g,h,i)perylene	191-24-2	47	J 18	180	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Chrysene	218-01-9	20	J 18	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	51	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	40	J 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL129 SDG#: DOE01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	23	J 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180	1
	Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.81	J 0.36	1.8	1
10138	Anthracene	120-12-7	3.5	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	9.4	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	17	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	57	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	14	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	20	1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	20	1
10138	Dibenz(a,h)anthracene	53-70-3	3.2	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5	U 6.5	20	1
10138	Dimethylphthalate	131-11-3	6.5	U 6.5	20	1
10138	Fluoranthene	206-44-0	19	0.72	1.8	1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	1.2	J 0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	1.8	0.72	1.8	1
10138	Naphthalene	91-20-3	1.8	J 0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	15	0.72	1.8	1
10138	Phenanthrene	85-01-8	17	0.72	1.8	1
10138	Pyrene	129-00-0	13	0.72	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3	U 1.3	3.9	1
10401	Dalapon	75-99-0	4.8	U 4.8	9.8	1
10401	2,4-DB	94-82-6	9.2	U 9.2	9.2	1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3	1
10401	Dinoseb	88-85-7	0.87	U 0.87	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.87	U 0.87	1.8	1
10401	MCPA	94-74-6	1,000	82	270	1
10401	MCPP (Mecoprop)	93-65-2	81	U 81	270	1
10401	2,4,5-T	93-76-5	0.11	J 0.089	0.18	1
10401	2,4,5-TP	93-72-1	0.081	U 0.081	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation

Sample Description: SL-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL129 SDG#: DOE01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Perchlorate						
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007 14797-73-0	ug/kg 2.3 U	ug/kg 2.3	ug/kg 5.4	1
Pesticides/PCBs						
01363	Aldrin	SW-846 8081A 309-00-2	ug/kg 0.072 U	ug/kg 0.072	ug/kg 0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.52	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	13 U	13	0.18	1
01363	p,p-DDD	72-54-8	0.072 U	0.072	0.37	1
01363	p,p-DDE	72-55-9	0.84 U	0.84	0.84	1
01363	p,p-DDT	50-29-3	3.1 U	3.1	3.1	5
01363	Delta BHC	319-86-8	0.086 J	0.039	0.18	1
01363	Dieldrin	60-57-1	0.072 U	0.072	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.23 U	0.23	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37	1
01363	Endrin	72-20-8	0.46 U	0.46	0.46	1
01363	Endrin Aldehyde	7421-93-4	0.56 U	0.56	0.56	1
01363	Endrin Ketone	53494-70-5	0.072 U	0.072	0.37	1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.26 U	0.26	0.26	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.072 U	0.072	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs						
10225	Aroclor 5432	SW-846 8082 63496-31-1	ug/kg 5.4 U	ug/kg 5.4	ug/kg 18	5
10225	Aroclor 5442	12642-23-8	5.4 U	5.4	18	5
10225	Aroclor 5460	11126-42-4	21	5.4	18	5
10225	PCB-1016	12674-11-2	1.8 U	1.8	9.2	5
10225	PCB-1221	11104-28-2	2.7 U	2.7	9.2	5
10225	PCB-1232	11141-16-5	2.8 U	2.8	9.2	5
10225	PCB-1242	53469-21-9	2.7 U	2.7	9.2	5
10225	PCB-1248	12672-29-6	1.8 U	1.8	9.2	5
10225	PCB-1254	11097-69-1	89	1.8	9.2	5
10225	PCB-1260	11096-82-5	31	1.8	9.2	5
10225	PCB-1262	37324-23-5	1.8 U	1.8	9.2	5
10225	PCB-1268	11100-14-4	1.8 U	1.8	9.2	5

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

Sample Description: SL-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL129 SDG#: DOE01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,400	5.46	21.7	1
07914	Boron	7440-42-8	8.13	0.965	5.42	1
01650	Calcium	7440-70-2	5,120	6.65	21.7	1
01654	Iron	7439-89-6	20,300	5.11	21.7	1
01656	Lithium	7439-93-2	28.1	0.24	2.2	1
01657	Magnesium	7439-95-4	4,740	2.75	10.8	1
06958	Manganese	7439-96-5	295	0.0846	0.542	1
10145	Phosphorus	7723-14-0	439	0.607	10.8	1
01662	Potassium	7440-09-7	3,700	19.5	54.2	1
01667	Sodium	7440-23-5	87.6 J	40.5	108	1
07968	Strontium	7440-24-6	21.6	0.0672	0.542	1
06969	Tin	7440-31-5	2.49 J	1.08	10.8	1
06970	Titanium	7440-32-6	1,030	2.06	5.42	5
10146	Zirconium	7440-67-7	3.63 J	0.911	5.42	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.412	0.0644	0.215	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.74	0.0644	0.430	2
06126	Barium	7440-39-3	127	0.116	0.430	2
06127	Beryllium	7440-41-7	0.723	0.0172	0.107	2
06128	Cadmium	7440-43-9	0.725	0.0387	0.107	2
06131	Chromium	7440-47-3	34.5	0.129	0.430	2
06132	Cobalt	7440-48-4	8.15	0.0215	0.107	2
06133	Copper	7440-50-8	77.9	0.0709	0.430	2
06135	Lead	7439-92-1	16.8	0.0112	0.215	2
06138	Molybdenum	7439-98-7	0.742	0.0537	0.107	2
06139	Nickel	7440-02-0	22.2	0.107	0.430	2
06141	Selenium	7782-49-2	0.216 J	0.0430	0.430	2
06142	Silver	7440-22-4	3.37	0.0129	0.107	2
06145	Thallium	7440-28-0	0.422	0.0322	0.107	2
06148	Vanadium	7440-62-2	54.1	0.0236	0.107	2
06149	Zinc	7440-66-6	143	0.601	3.22	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.103 J	0.0031	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.87 U	0.87	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.5	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.48 J	0.22	1.1	1

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

Sample Description: SL-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL129 SDG#: DOE01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	359	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.03	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	28a Moisture Content by 160.3	n.a.	7.8	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL129 SDG#: DOE01-06

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	0.241	J 0.150	1.08	1
11031	12378-PeCDD	40321-76-4	3.46	J 0.415	5.42	1
11031	123478-HxCDD	39227-28-6	7.03	0.419	5.42	1
11031	123678-HxCDD	57653-85-7	34.5	B 0.443	5.42	1
11031	123789-HxCDD	19408-74-3	17.7	0.407	5.42	1
11031	1234678-HpCDD	35822-46-9	839	B 0.667	5.42	1
11031	OCDD	3268-87-9	9,370	EB 0.871	10.8	1
11031	2378-TCDF	51207-31-9	1.87	0.513	1.08	1
11031	12378-PeCDF	57117-41-6	2.86	J 0.255	5.42	1
11031	23478-PeCDF	57117-31-4	1.89	JB 0.245	5.42	1
11031	123478-HxCDF	70648-26-9	3.72	JB 0.386	5.42	1
11031	123678-HxCDF	57117-44-9	3.42	J 0.376	5.42	1
11031	123789-HxCDF	72918-21-9	1.12	JB 0.423	5.42	1
11031	234678-HxCDF	60851-34-5	6.35	B 0.379	5.42	1
11031	1234678-HpCDF	67562-39-4	94.7	B 0.313	5.42	1
11031	1234789-HpCDF	55673-89-7	13.5	B 0.394	5.42	1
11031	OCDF	39001-02-0	241	B 0.254	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	86	26 - 138
13C12-OCDF	90	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

Sample Description: SL-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL129 SDG#: DOE01-06

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-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL129 SDG#: DOE01-06

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 22:04	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 11:54	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 07:28	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103060030A	11/03/2010 18:15	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 17:31	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 17:46	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 00:40	Richard A Shober	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103060030A	11/03/2010 10:00	Maria Davenport	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 08:28	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 08:04	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:24	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:33	Choon Y Tian	2

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

Sample Description: SL-129-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SS-0.0-0.5

LLI Sample # SW 6118541
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 10:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL129 SDG#: DOE01-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:33	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:33	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 10:33	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:30	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 11:47	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 18:33	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/25/2010 22:23	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 14:20

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL130 SDG#: DOE01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzo(a)pyrene	50-32-8	19	J 18	180	1
04688	Benzo(b)fluoranthene	205-99-2	68	J 18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	72	J 18	180	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Chrysene	218-01-9	26	J 18	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	710	U 710	2,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	52	J 18	350	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	69	J 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1

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

Sample Description: SL-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 14:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL130 SDG#: DOE01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	N-Nitrosodiphenylamine	86-30-6	18 U	18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	20 J	18	180	1
04688	Pentachlorophenol	87-86-5	180 U	180	530	1
04688	Phenanthrene	85-01-8	22 J	18	180	1
04688	Phenol	108-95-2	18 U	18	180	1
04688	Pyrene	129-00-0	21 J	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
	Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.59 J	0.35	1.8	1
10138	Anthracene	120-12-7	3.4	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	7.5	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	11	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Dibenz(a,h)anthracene	53-70-3	1.7 J	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	22	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	1.4 J	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	1.9	0.71	1.8	1
10138	Naphthalene	91-20-3	1.8 J	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	16	0.71	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.8	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.6	1
10401	2,4-DB	94-82-6	0.66 U	0.66	1.8	1
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3	1
10401	Dinoseb	88-85-7	0.85 U	0.85	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8	1
10401	MCPA	94-74-6	81 U	81	270	1
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270	1
10401	2,4,5-T	93-76-5	0.087 U	0.087	0.18	1
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.					
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		

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

Sample Description: SL-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 14:20

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL130 SDG#: DOE01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.30	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	4.5 U	4.5	4.5	1
01363	p,p-DDD	72-54-8	0.070 U	0.070	0.36	1
01363	p,p-DDE	72-55-9	0.60 U	0.60	0.60	1
01363	p,p-DDT	50-29-3	0.070 U	0.070	0.36	1
01363	Delta BHC	319-86-8	0.083 J	0.038	0.18	1
01363	Dieldrin	60-57-1	0.070 U	0.070	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.21 U	0.21	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.070 U	0.070	0.36	1
01363	Endrin	72-20-8	0.56 U	0.56	0.56	1
01363	Endrin Aldehyde	7421-93-4	0.36 U	0.36	0.36	1
01363	Endrin Ketone	53494-70-5	0.070 U	0.070	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.49 U	0.49	0.49	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.070 U	0.070	0.36	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	7.0	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	5.3 U	5.3	18	5
10225	Aroclor 5442	12642-23-8	5.3 U	5.3	18	5
10225	Aroclor 5460	11126-42-4	17 J	5.3	18	5
10225	PCB-1016	12674-11-2	1.8 U	1.8	9.1	5
10225	PCB-1221	11104-28-2	2.7 U	2.7	9.1	5
10225	PCB-1232	11141-16-5	2.8 U	2.8	9.1	5
10225	PCB-1242	53469-21-9	2.7 U	2.7	9.1	5
10225	PCB-1248	12672-29-6	1.8 U	1.8	9.1	5
10225	PCB-1254	11097-69-1	97	1.8	9.1	5
10225	PCB-1260	11096-82-5	22	1.8	9.1	5
10225	PCB-1262	37324-23-5	1.8 U	1.8	9.1	5
10225	PCB-1268	11100-14-4	1.8 U	1.8	9.1	5

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,400	5.15	20.5	1
07914	Boron	7440-42-8	6.85	0.911	5.12	1
01650	Calcium	7440-70-2	3,520	6.28	20.5	1
01654	Iron	7439-89-6	18,600	4.82	20.5	1
01656	Lithium	7439-93-2	27.7	0.23	2.0	1

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

Sample Description: SL-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 14:20

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL130 SDG#: DOE01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	4,390	2.60	10.2	1
06958	Manganese	7439-96-5	286	0.0799	0.512	1
10145	Phosphorus	7723-14-0	370	0.573	10.2	1
01662	Potassium	7440-09-7	3,030	18.4	51.2	1
01667	Sodium	7440-23-5	72.0 J	38.2	102	1
07968	Strontium	7440-24-6	18.8	0.0635	0.512	1
06969	Tin	7440-31-5	2.55 J	1.02	10.2	1
06970	Titanium	7440-32-6	1,030	1.95	5.12	5
10146	Zirconium	7440-67-7	3.06 J	0.860	5.12	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.257	0.0620	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.66	0.0620	0.414	2
06126	Barium	7440-39-3	88.6	0.112	0.414	2
06127	Beryllium	7440-41-7	0.604	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.471	0.0372	0.103	2
06131	Chromium	7440-47-3	22.1	0.124	0.414	2
06132	Cobalt	7440-48-4	5.65	0.0207	0.103	2
06133	Copper	7440-50-8	33.4	0.0682	0.414	2
06135	Lead	7439-92-1	11.6	0.0108	0.207	2
06138	Molybdenum	7439-98-7	0.497	0.0517	0.103	2
06139	Nickel	7440-02-0	14.2	0.103	0.414	2
06141	Selenium	7782-49-2	0.165 J	0.0414	0.414	2
06142	Silver	7440-22-4	2.17	0.0124	0.103	2
06145	Thallium	7440-28-0	0.301	0.0310	0.103	2
06148	Vanadium	7440-62-2	36.9	0.0227	0.103	2
06149	Zinc	7440-66-6	107	0.579	3.10	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0816 J	0.0029	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.96 J	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	31.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	357	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

Sample Description: SL-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 14:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL130 SDG#: DOE01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.10	0.0100	0.0100	1
Wet Chemistry						
		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	6.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
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SL130 SDG#: DOE01-07

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	0.135	U 0.135	1.06	1
11031	12378-PeCDD	40321-76-4	2.43	J 0.353	5.32	1
11031	123478-HxCDD	39227-28-6	4.44	J 0.490	5.32	1
11031	123678-HxCDD	57653-85-7	22.9	B 0.517	5.32	1
11031	123789-HxCDD	19408-74-3	11.1	0.493	5.32	1
11031	1234678-HpCDD	35822-46-9	531	B 0.550	5.32	1
11031	OCDD	3268-87-9	5,610	EB 0.638	10.6	1
11031	2378-TCDF	51207-31-9	1.45	Q 0.623	1.06	1
11031	12378-PeCDF	57117-41-6	1.93	JQ 0.250	5.32	1
11031	23478-PeCDF	57117-31-4	1.68	JBQ 0.231	5.32	1
11031	123478-HxCDF	70648-26-9	3.17	JBQ 0.359	5.32	1
11031	123678-HxCDF	57117-44-9	2.40	J 0.357	5.32	1
11031	123789-HxCDF	72918-21-9	0.709	JB 0.366	5.32	1
11031	234678-HxCDF	60851-34-5	4.83	JB 0.348	5.32	1
11031	1234678-HpCDF	67562-39-4	64.6	B 0.371	5.32	1
11031	1234789-HpCDF	55673-89-7	9.54	B 0.457	5.32	1
11031	OCDF	39001-02-0	159	B 0.207	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	95	23 - 140
13C12-OCDD	108	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	91	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	90	26 - 138
13C12-OCDF	97	17 - 157
13C12-1278-TCDD (CRS)	95	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-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 14:20

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Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL130 SDG#: DOE01-07

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

Sample Description: SL-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
LLI Group # 1217424
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Project Name: SSFL Area IV Collocated Soil Sampling

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Chantilly VA 20151

SL130 SDG#: DOE01-07

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 22:30	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 12:28	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 07:56	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 18:00	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 00:59	Richard A Shober	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 09:27	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 08:07	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:28	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:36	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2

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

Sample Description: SL-130-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-130-SA5C-SS-0.0-0.5

LLI Sample # SW 6118542
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 14:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL130 SDG#: DOE01-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:36	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:36	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 10:36	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:32	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 12:32	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 19:21	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/25/2010 22:39	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL132 SDG#: DOE01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	200	U 200	600	1
04688	Benzidine	92-87-5	1,400	U 1,400	4,000	1
04688	Benzoic acid	65-85-0	200	U 200	600	1
04688	Benzyl alcohol	100-51-6	200	U 200	600	1
04688	4-Bromophenyl-phenylether	101-55-3	20	U 20	200	1
04688	Carbazole	86-74-8	20	U 20	200	1
04688	4-Chloro-3-methylphenol	59-50-7	40	U 40	200	1
04688	4-Chloroaniline	106-47-8	80	U 80	200	1
04688	bis(2-Chloroethoxy)methane	111-91-1	20	U 20	200	1
04688	bis(2-Chloroethyl)ether	111-44-4	20	U 20	200	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	20	U 20	200	1
04688	2-Chloronaphthalene	91-58-7	20	U 20	200	1
04688	2-Chlorophenol	95-57-8	20	U 20	200	1
04688	4-Chlorophenyl-phenylether	7005-72-3	40	U 40	200	1
04688	Dibenzofuran	132-64-9	20	U 20	200	1
04688	1,2-Dichlorobenzene	95-50-1	20	U 20	200	1
04688	1,3-Dichlorobenzene	541-73-1	20	U 20	200	1
04688	1,4-Dichlorobenzene	106-46-7	20	U 20	200	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	400	1
04688	2,4-Dichlorophenol	120-83-2	20	U 20	200	1
04688	2,4-Dimethylphenol	105-67-9	40	U 40	200	1
04688	3,5-Dimethylphenol	108-68-9	40	U 40	200	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	200	U 200	600	1
04688	2,4-Dinitrophenol	51-28-5	800	U 800	2,400	1
04688	2,4-Dinitrotoluene	121-14-2	40	U 40	200	1
04688	2,6-Dinitrotoluene	606-20-2	20	U 20	200	1
04688	1,2-Diphenylhydrazine	122-66-7	20	U 20	200	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	50	J 20	400	1
04688	Hexachlorobenzene	118-74-1	20	U 20	200	1
04688	Hexachlorobutadiene	87-68-3	80	U 80	200	1
04688	Hexachlorocyclopentadiene	77-47-4	200	U 200	600	1
04688	Hexachloroethane	67-72-1	20	U 20	200	1
04688	Isophorone	78-59-1	20	U 20	200	1
04688	2-Methylphenol	95-48-7	40	U 40	200	1
04688	4-Methylphenol	106-44-5	40	U 40	200	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	20	U 20	200	1
04688	3-Nitroaniline	99-09-2	40	U 40	200	1
04688	4-Nitroaniline	100-01-6	80	U 80	200	1
04688	Nitrobenzene	98-95-3	20	U 20	200	1
04688	2-Nitrophenol	88-75-5	20	U 20	200	1
04688	4-Nitrophenol	100-02-7	200	U 200	600	1
04688	N-Nitroso-di-n-propylamine	621-64-7	20	U 20	200	1
04688	N-Nitrosodiphenylamine	86-30-6	20	U 20	200	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	25	J 20	200	1

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

Sample Description: SL-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL132 SDG#: DOE01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Pentachlorophenol	87-86-5	200	U 200	600	1
04688	Phenol	108-95-2	20	U 20	200	1
04688	1,2,4-Trichlorobenzene	120-82-1	20	U 20	200	1
04688	2,4,5-Trichlorophenol	95-95-4	40	U 40	200	1
04688	2,4,6-Trichlorophenol	88-06-2	40	U 40	200	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.						
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.80	U 0.80	2.0	1
10138	Acenaphthylene	208-96-8	0.40	U 0.40	2.0	1
10138	Anthracene	120-12-7	0.40	U 0.40	2.0	1
10138	Benzo(a)anthracene	56-55-3	0.80	U 0.80	2.0	1
10138	Benzo(a)pyrene	50-32-8	1.1	J 0.80	2.0	1
10138	Benzo(b)fluoranthene	205-99-2	3.9	U 0.80	2.0	1
10138	Benzo(g,h,i)perylene	191-24-2	0.80	U 0.80	2.0	1
10138	Benzo(k)fluoranthene	207-08-9	0.80	U 0.80	2.0	1
10138	Butylbenzylphthalate	85-68-7	7.2	U 7.2	22	1
10138	Di-n-butylphthalate	84-74-2	7.2	U 7.2	22	1
10138	Chrysene	218-01-9	1.0	J 0.40	2.0	1
10138	Dibenz(a,h)anthracene	53-70-3	0.80	U 0.80	2.0	1
10138	Diethylphthalate	84-66-2	7.2	U 7.2	22	1
10138	Dimethylphthalate	131-11-3	7.2	U 7.2	22	1
10138	Fluoranthene	206-44-0	1.5	J 0.80	2.0	1
10138	Fluorene	86-73-7	0.80	U 0.80	2.0	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.80	U 0.80	2.0	1
10138	1-Methylnaphthalene	90-12-0	0.80	U 0.80	2.0	1
10138	2-Methylnaphthalene	91-57-6	0.80	U 0.80	2.0	1
10138	Naphthalene	91-20-3	0.81	J 0.80	2.0	1
10138	N-Nitrosodimethylamine	62-75-9	13	U 0.80	2.0	1
10138	Phenanthrene	85-01-8	1.3	J 0.80	2.0	1
10138	Pyrene	129-00-0	1.0	J 0.80	2.0	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.4	U 1.4	4.3	1
10401	Dalapon	75-99-0	5.3	U 5.3	11	1
10401	2,4-DB	94-82-6	3.4	U 3.4	3.4	1
10401	Dicamba	1918-00-9	0.48	U 0.48	1.4	1
10401	Dinoseb	88-85-7	0.97	U 0.97	2.9	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.97	U 0.97	2.1	1
10401	MCPA	94-74-6	92	U 92	300	1
10401	MCPP (Mecoprop)	93-65-2	170	J 90	300	1
10401	2,4,5-T	93-76-5	0.099	U 0.099	0.21	1
10401	2,4,5-TP	93-72-1	0.090	U 0.090	0.21	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the

Sample Description: SL-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL132 SDG#: DOE01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs						
		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.10 J	0.080	0.20	1
01363	Alpha BHC	319-84-6	0.041 U	0.041	0.20	1
01363	Beta BHC	319-85-7	0.072 U	0.072	0.20	1
01363	Gamma BHC - Lindane	58-89-9	0.041 U	0.041	0.20	1
01363	Chlordane	57-74-9	4.8 U	4.8	4.8	1
01363	p,p-DDD	72-54-8	0.080 U	0.080	0.41	1
01363	p,p-DDE	72-55-9	0.46 U	0.46	0.46	1
01363	p,p-DDT	50-29-3	0.33 U	0.33	0.41	1
01363	Delta BHC	319-86-8	0.043 U	0.043	0.20	1
01363	Dieldrin	60-57-1	0.080 U	0.080	0.41	1
01363	Endosulfan I	959-98-8	0.053 U	0.053	0.20	1
01363	Endosulfan II	33213-65-9	0.080 U	0.080	0.41	1
01363	Endosulfan Sulfate	1031-07-8	0.080 U	0.080	0.41	1
01363	Endrin	72-20-8	0.080 U	0.080	0.41	1
01363	Endrin Aldehyde	7421-93-4	0.15 U	0.15	0.41	1
01363	Endrin Ketone	53494-70-5	0.080 U	0.080	0.41	1
01363	Heptachlor	76-44-8	0.072 U	0.072	0.20	1
01363	Heptachlor Epoxide	1024-57-3	0.041 U	0.041	0.20	1
01363	Methoxychlor	72-43-5	0.41 U	0.41	2.0	1
01363	Mirex	2385-85-5	0.080 U	0.080	0.41	1
01363	Toxaphene	8001-35-2	2.7 U	2.7	8.0	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs						
		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	4.0	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	4.0	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	4.0	1
10225	PCB-1016	12674-11-2	0.40 U	0.40	2.1	1
10225	PCB-1221	11104-28-2	0.60 U	0.60	2.1	1
10225	PCB-1232	11141-16-5	0.63 U	0.63	2.1	1
10225	PCB-1242	53469-21-9	0.60 U	0.60	2.1	1
10225	PCB-1248	12672-29-6	0.40 U	0.40	2.1	1
10225	PCB-1254	11097-69-1	1.5 J	0.40	2.1	1
10225	PCB-1260	11096-82-5	0.68 J	0.40	2.1	1
10225	PCB-1262	37324-23-5	0.40 U	0.40	2.1	1
10225	PCB-1268	11100-14-4	0.40 U	0.40	2.1	1

Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg

Sample Description: SL-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL132 SDG#: DOE01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	25,800	5.83	23.2	1
07914	Boron	7440-42-8	10.3	1.03	5.80	1
01650	Calcium	7440-70-2	4,150	7.11	23.2	1
01654	Iron	7439-89-6	26,100	5.46	23.2	1
01656	Lithium	7439-93-2	25.5	0.26	2.3	1
01657	Magnesium	7439-95-4	5,340	2.95	11.6	1
06958	Manganese	7439-96-5	391	0.0905	0.580	1
10145	Phosphorus	7723-14-0	241	0.650	11.6	1
01662	Potassium	7440-09-7	3,540	20.9	58.0	1
01667	Sodium	7440-23-5	98.3 J	43.3	116	1
07968	Strontium	7440-24-6	33.4	0.0719	0.580	1
06969	Tin	7440-31-5	2.62 J	1.16	11.6	1
06970	Titanium	7440-32-6	1,300	2.20	5.80	5
10146	Zirconium	7440-67-7	5.86	0.974	5.80	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.303	0.0703	0.234	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.29	0.0703	0.468	2
06126	Barium	7440-39-3	201	0.126	0.468	2
06127	Beryllium	7440-41-7	1.01	0.0187	0.117	2
06128	Cadmium	7440-43-9	0.319	0.0422	0.117	2
06131	Chromium	7440-47-3	38.0	0.141	0.468	2
06132	Cobalt	7440-48-4	10.6	0.0234	0.117	2
06133	Copper	7440-50-8	13.4	0.0773	0.468	2
06135	Lead	7439-92-1	12.2	0.0122	0.234	2
06138	Molybdenum	7439-98-7	0.505	0.0586	0.117	2
06139	Nickel	7440-02-0	22.6	0.117	0.468	2
06141	Selenium	7782-49-2	0.175 J	0.0468	0.468	2
06142	Silver	7440-22-4	0.0768 J	0.0141	0.117	2
06145	Thallium	7440-28-0	0.368	0.0351	0.117	2
06148	Vanadium	7440-62-2	69.4	0.0258	0.117	2
06149	Zinc	7440-66-6	74.1	0.656	3.51	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0082 J	0.0034	0.120	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.0	0.97	1.2	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	17.5 J	10.9	36.2	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.91 J	0.24	1.2	1

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

Sample Description: SL-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL132 SDG#: DOE01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	360	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.23	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	28a Moisture Content by 160.3	n.a.	17.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL132 SDG#: DOE01-08

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	0.0837 U	0.0837	1.21	1
11031	12378-PeCDD	40321-76-4	0.0788 U	0.0788	6.03	1
11031	123478-HxCDD	39227-28-6	0.0931 U	0.0931	6.03	1
11031	123678-HxCDD	57653-85-7	0.357 JBQ	0.100	6.03	1
11031	123789-HxCDD	19408-74-3	0.360 J	0.0982	6.03	1
11031	1234678-HpCDD	35822-46-9	5.38 JB	0.210	6.03	1
11031	OCDD	3268-87-9	88.6 B	0.166	12.1	1
11031	2378-TCDF	51207-31-9	0.0935 U	0.0935	1.21	1
11031	12378-PeCDF	57117-41-6	0.0660 U	0.0660	6.03	1
11031	23478-PeCDF	57117-31-4	0.381 JBQ	0.0598	6.03	1
11031	123478-HxCDF	70648-26-9	0.189 JBQ	0.0786	6.03	1
11031	123678-HxCDF	57117-44-9	0.236 JQ	0.0779	6.03	1
11031	123789-HxCDF	72918-21-9	0.310 JBQ	0.0878	6.03	1
11031	234678-HxCDF	60851-34-5	0.585 JBQ	0.0793	6.03	1
11031	1234678-HpCDF	67562-39-4	1.39 JB	0.0800	6.03	1
11031	1234789-HpCDF	55673-89-7	0.109 U	0.109	6.03	1
11031	OCDF	39001-02-0	2.08 JB	0.119	12.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	87	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	83	17 - 157
13C12-1278-TCDD (CRS)	94	35 - 197

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

CDM Federal Programs Corp.

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Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL132 SDG#: DOE01-08

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-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

CDM Federal Programs Corp.

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Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL132 SDG#: DOE01-08

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 22:56	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 13:04	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/02/2010 23:37	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 18:29	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 01:18	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 10:27	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 08:11	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:31	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:39	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2

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

Sample Description: SL-132-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA5C-SS-0.0-0.5

LLI Sample # SW 6118543
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL132 SDG#: DOE01-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:39	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:39	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 10:39	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:33	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 12:47	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 19:45	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10297243201A	10/25/2010 23:03	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL133 SDG#: DOE01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benidine	92-87-5	1,200	U 1,200	3,600	1
04688	Benzo(g,h,i)perylene	191-24-2	72	J 18	180	1
04688	Benzo(k)fluoranthene	207-08-9	18	U 18	180	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Chrysene	218-01-9	24	J 18	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	710	U 710	2,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	53	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	72	J 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL133 SDG#: DOE01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	24	J 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180	1
	Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71	U	1.8	1
10138	Acenaphthylene	208-96-8	0.94	J	1.8	1
10138	Anthracene	120-12-7	5.1		1.8	1
10138	Benzo(a)anthracene	56-55-3	11		1.8	1
10138	Benzo(a)pyrene	50-32-8	20		1.8	1
10138	Benzo(b)fluoranthene	205-99-2	68		1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4	U	19	1
10138	Di-n-butylphthalate	84-74-2	6.4	U	19	1
10138	Dibenz(a,h)anthracene	53-70-3	7.9		1.8	1
10138	Diethylphthalate	84-66-2	6.4	U	19	1
10138	Dimethylphthalate	131-11-3	6.4	U	19	1
10138	Fluoranthene	206-44-0	24		1.8	1
10138	Fluorene	86-73-7	0.71	U	1.8	1
10138	1-Methylnaphthalene	90-12-0	1.5	J	1.8	1
10138	2-Methylnaphthalene	91-57-6	2.2		1.8	1
10138	Naphthalene	91-20-3	2.1		1.8	1
10138	N-Nitrosodimethylamine	62-75-9	2.5		1.8	1
10138	Phenanthrene	85-01-8	24		1.8	1
10138	Pyrene	129-00-0	18		1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3	U	3.8	1
10401	Dalapon	75-99-0	0.47	U	0.96	1
10401	2,4-DB	94-82-6	0.66	U	1.8	1
10401	Dicamba	1918-00-9	0.43	U	1.3	1
10401	Dinoseb	88-85-7	0.85	U	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.85	U	1.8	1
10401	MCPA	94-74-6	530		270	1
10401	MCPP (Mecoprop)	93-65-2	80	U	270	1
10401	2,4,5-T	93-76-5	0.088	U	0.18	1
10401	2,4,5-TP	93-72-1	0.080	U	0.18	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.					
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		

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

Sample Description: SL-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL133 SDG#: DOE01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.19	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	7.0 U	7.0	7.0	1
01363	p,p-DDD	72-54-8	0.070 U	0.070	0.36	1
01363	p,p-DDE	72-55-9	0.89 U	0.89	0.89	1
01363	p,p-DDT	50-29-3	3.7 U	3.7	3.7	5
01363	Delta BHC	319-86-8	0.10 J	0.038	0.18	1
01363	Dieldrin	60-57-1	0.070 U	0.070	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.38 U	0.38	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.070 U	0.070	0.36	1
01363	Endrin	72-20-8	0.45 U	0.45	0.45	1
01363	Endrin Aldehyde	7421-93-4	0.68 U	0.68	0.68	1
01363	Endrin Ketone	53494-70-5	0.070 U	0.070	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.14 U	0.14	0.18	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.070 U	0.070	0.36	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	7.0	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	5.3 U	5.3	18	5
10225	Aroclor 5442	12642-23-8	5.3 U	5.3	18	5
10225	Aroclor 5460	11126-42-4	18	5.3	18	5
10225	PCB-1016	12674-11-2	1.8 U	1.8	9.1	5
10225	PCB-1221	11104-28-2	2.7 U	2.7	9.1	5
10225	PCB-1232	11141-16-5	2.8 U	2.8	9.1	5
10225	PCB-1242	53469-21-9	2.7 U	2.7	9.1	5
10225	PCB-1248	12672-29-6	1.8 U	1.8	9.1	5
10225	PCB-1254	11097-69-1	41	1.8	9.1	5
10225	PCB-1260	11096-82-5	27	1.8	9.1	5
10225	PCB-1262	37324-23-5	1.8 U	1.8	9.1	5
10225	PCB-1268	11100-14-4	1.8 U	1.8	9.1	5
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	14,900	5.32	21.1	1
07914	Boron	7440-42-8	7.32	0.940	5.28	1
01650	Calcium	7440-70-2	4,280	6.48	21.1	1

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

Sample Description: SL-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL133 SDG#: DOE01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	19,100	4.98	21.1	1
01656	Lithium	7439-93-2	28.7	0.23	2.1	1
01657	Magnesium	7439-95-4	4,380	2.68	10.6	1
06958	Manganese	7439-96-5	287	0.0824	0.528	1
10145	Phosphorus	7723-14-0	358	0.592	10.6	1
01662	Potassium	7440-09-7	3,100	19.0	52.8	1
01667	Sodium	7440-23-5	83.9 J	39.4	106	1
07968	Strontium	7440-24-6	23.8	0.0655	0.528	1
06969	Tin	7440-31-5	2.70 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,070	2.01	5.28	5
10146	Zirconium	7440-67-7	3.99 J	0.888	5.28	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.274	0.0628	0.209	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	10.1	0.0628	0.419	2
06126	Barium	7440-39-3	121	0.113	0.419	2
06127	Beryllium	7440-41-7	0.814	0.0167	0.105	2
06128	Cadmium	7440-43-9	0.898	0.0377	0.105	2
06131	Chromium	7440-47-3	30.3	0.126	0.419	2
06132	Cobalt	7440-48-4	7.87	0.0209	0.105	2
06133	Copper	7440-50-8	31.1	0.0691	0.419	2
06135	Lead	7439-92-1	18.7	0.0109	0.209	2
06138	Molybdenum	7439-98-7	0.717	0.0523	0.105	2
06139	Nickel	7440-02-0	18.7	0.105	0.419	2
06141	Selenium	7782-49-2	0.278 J	0.0419	0.419	2
06142	Silver	7440-22-4	2.85	0.0126	0.105	2
06145	Thallium	7440-28-0	0.392	0.0314	0.105	2
06148	Vanadium	7440-62-2	48.9	0.0230	0.105	2
06149	Zinc	7440-66-6	146	0.586	3.14	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.110	0.0030	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.7	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.67 J	0.21	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	372	10.0	10.0	1

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

Sample Description: SL-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL133 SDG#: DOE01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	ASTM D1498		mV	mV	mV	
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.28	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	28a Moisture Content by 160.3	n.a.	6.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL133 SDG#: DOE01-09

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	0.189	JQ 0.142	1.07	1
11031	12378-PeCDD	40321-76-4	2.52	J 0.300	5.34	1
11031	123478-HxCDD	39227-28-6	6.38	0.454	5.34	1
11031	123678-HxCDD	57653-85-7	27.5	B 0.473	5.34	1
11031	123789-HxCDD	19408-74-3	14.1	0.468	5.34	1
11031	1234678-HpCDD	35822-46-9	664	B 0.547	5.34	1
11031	OCDD	3268-87-9	6,290	EB 0.707	10.7	1
11031	2378-TCDF	51207-31-9	0.986	J 0.418	1.07	1
11031	12378-PeCDF	57117-41-6	2.32	J 0.218	5.34	1
11031	23478-PeCDF	57117-31-4	1.76	JB 0.208	5.34	1
11031	123478-HxCDF	70648-26-9	3.11	JB 0.456	5.34	1
11031	123678-HxCDF	57117-44-9	3.37	J 0.463	5.34	1
11031	123789-HxCDF	72918-21-9	0.936	JB 0.462	5.34	1
11031	234678-HxCDF	60851-34-5	5.76	B 0.437	5.34	1
11031	1234678-HpCDF	67562-39-4	87.8	B 0.354	5.34	1
11031	1234789-HpCDF	55673-89-7	12.9	B 0.433	5.34	1
11031	OCDF	39001-02-0	209	B 0.226	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	98	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	91	28 - 130
13C12-123789-HxCDD	90	28 - 130
13C12-1234678-HpCDD	100	23 - 140
13C12-OCDD	115	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	99	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	96	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	95	26 - 138
13C12-OCDF	102	17 - 157
13C12-1278-TCDD (CRS)	91	35 - 197

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL133 SDG#: DOE01-09

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-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL133 SDG#: DOE01-09

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 23:22	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/09/2010 01:54	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 00:05	John W Perkins	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 00:05	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 19:58	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 20:12	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 01:36	Richard A Shober	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 11:26	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 08:14	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:35	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2

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

Sample Description: SL-133-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-133-SA5C-SS-0.0-0.5

LLI Sample # SW 6118544
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2010 15:00

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL133 SDG#: DOE01-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:42	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 10:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 13:02	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 20:09	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10297243201A	10/25/2010 23:19	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101A	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401A	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL134 SDG#: DOE01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benizidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzo(a)pyrene	50-32-8	18	J 18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	43	J 18	180	1
04688	Benzo(k)fluoranthene	207-08-9	18	U 18	180	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Chrysene	218-01-9	19	J 18	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	46	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	50	J 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1

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

Sample Description: SL-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL134 SDG#: DOE01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	N-Nitrosodiphenylamine	86-30-6	18 U	18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	19 J	18	180	1
04688	Pentachlorophenol	87-86-5	180 U	180	540	1
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
	Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.83 J	0.36	1.8	1
10138	Anthracene	120-12-7	3.2	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	7.2	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	52	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Dibenz(a,h)anthracene	53-70-3	2.7	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Fluoranthene	206-44-0	12	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	1.0 J	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	1.7 J	0.72	1.8	1
10138	Naphthalene	91-20-3	1.5 J	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	14	0.72	1.8	1
10138	Phenanthrene	85-01-8	13	0.72	1.8	1
10138	Pyrene	129-00-0	8.9	0.72	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.9	1
10401	Dalapon	75-99-0	4.8 U	4.8	9.7	1
10401	2,4-DB	94-82-6	0.67 U	0.67	1.8	1
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3	1
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8	1
10401	MCPA	94-74-6	82 U	82	270	1
10401	MCPP (Mecoprop)	93-65-2	81 U	81	270	1
10401	2,4,5-T	93-76-5	0.089 U	0.089	0.18	1
10401	2,4,5-TP	93-72-1	0.081 U	0.081	0.18	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.					
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		

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

Sample Description: SL-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL134 SDG#: DOE01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.13 J	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	6.5 U	6.5	6.5	1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.37	1
01363	p,p-DDE	72-55-9	0.73 U	0.73	0.73	1
01363	p,p-DDT	50-29-3	3.7 U	3.7	3.7	5
01363	Delta BHC	319-86-8	0.10 J	0.039	0.18	1
01363	Dieldrin	60-57-1	0.071 U	0.071	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.29 U	0.29	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.37	1
01363	Endrin	72-20-8	0.50 U	0.50	0.50	1
01363	Endrin Aldehyde	7421-93-4	0.56 U	0.56	0.56	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37	1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.27 U	0.27	0.27	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.071 U	0.071	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	5.4 U	5.4	18	5
10225	Aroclor 5442	12642-23-8	5.4 U	5.4	18	5
10225	Aroclor 5460	11126-42-4	170	5.4	18	5
10225	PCB-1016	12674-11-2	1.8 U	1.8	9.2	5
10225	PCB-1221	11104-28-2	2.7 U	2.7	9.2	5
10225	PCB-1232	11141-16-5	2.8 U	2.8	9.2	5
10225	PCB-1242	53469-21-9	2.7 U	2.7	9.2	5
10225	PCB-1248	12672-29-6	1.8 U	1.8	9.2	5
10225	PCB-1254	11097-69-1	95	1.8	9.2	5
10225	PCB-1260	11096-82-5	39	1.8	9.2	5
10225	PCB-1262	37324-23-5	1.8 U	1.8	9.2	5
10225	PCB-1268	11100-14-4	1.8 U	1.8	9.2	5

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,300	5.22	20.8	1
07914	Boron	7440-42-8	7.72	0.924	5.19	1
01650	Calcium	7440-70-2	4,060	6.37	20.8	1

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

Sample Description: SL-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:40

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL134 SDG#: DOE01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	20,100	4.89	20.8	1
01656	Lithium	7439-93-2	28.4	0.23	2.1	1
01657	Magnesium	7439-95-4	4,750	2.64	10.4	1
06958	Manganese	7439-96-5	300	0.0810	0.519	1
10145	Phosphorus	7723-14-0	375	0.581	10.4	1
01662	Potassium	7440-09-7	3,370	18.7	51.9	1
01667	Sodium	7440-23-5	76.8 J	38.7	104	1
07968	Strontium	7440-24-6	20.3	0.0644	0.519	1
06969	Tin	7440-31-5	2.64 J	1.04	10.4	1
06970	Titanium	7440-32-6	1,110	1.97	5.19	5
10146	Zirconium	7440-67-7	4.25 J	0.872	5.19	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.336	0.0635	0.212	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	9.88	0.0635	0.423	2
06126	Barium	7440-39-3	121	0.114	0.423	2
06127	Beryllium	7440-41-7	0.778	0.0169	0.106	2
06128	Cadmium	7440-43-9	0.681	0.0381	0.106	2
06131	Chromium	7440-47-3	28.9	0.127	0.423	2
06132	Cobalt	7440-48-4	7.51	0.0212	0.106	2
06133	Copper	7440-50-8	90.0	0.0699	0.423	2
06135	Lead	7439-92-1	17.1	0.0110	0.212	2
06138	Molybdenum	7439-98-7	0.680	0.0529	0.106	2
06139	Nickel	7440-02-0	18.2	0.106	0.423	2
06141	Selenium	7782-49-2	0.217 J	0.0423	0.423	2
06142	Silver	7440-22-4	3.11	0.0127	0.106	2
06145	Thallium	7440-28-0	0.352	0.0318	0.106	2
06148	Vanadium	7440-62-2	52.1	0.0233	0.106	2
06149	Zinc	7440-66-6	132	0.593	3.18	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0943 J	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.45 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	340	10.0	10.0	1

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

Sample Description: SL-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL134 SDG#: DOE01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	ASTM D1498		mV	mV	mV	
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.99	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	28a Moisture Content by 160.3	n.a.	7.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
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Suite 210
Chantilly VA 20151

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL134 SDG#: DOE01-10

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	0.181	J 0.157	1.08	1
11031	12378-PeCDD	40321-76-4	2.43	J 0.361	5.40	1
11031	123478-HxCDD	39227-28-6	5.97	0.360	5.40	1
11031	123678-HxCDD	57653-85-7	26.1	B 0.372	5.40	1
11031	123789-HxCDD	19408-74-3	13.6	0.365	5.40	1
11031	1234678-HpCDD	35822-46-9	688	B 0.614	5.40	1
11031	OCDD	3268-87-9	7,720	EB 0.897	10.8	1
11031	2378-TCDF	51207-31-9	1.10	Q 0.400	1.08	1
11031	12378-PeCDF	57117-41-6	2.04	J 0.205	5.40	1
11031	23478-PeCDF	57117-31-4	1.49	JB 0.179	5.40	1
11031	123478-HxCDF	70648-26-9	2.70	JBQ 0.448	5.40	1
11031	123678-HxCDF	57117-44-9	3.30	JQ 0.454	5.40	1
11031	123789-HxCDF	72918-21-9	0.637	JBQ 0.500	5.40	1
11031	234678-HxCDF	60851-34-5	5.53	B 0.449	5.40	1
11031	1234678-HpCDF	67562-39-4	83.0	B 0.427	5.40	1
11031	1234789-HpCDF	55673-89-7	11.3	B 0.559	5.40	1
11031	OCDF	39001-02-0	197	B 0.283	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	109	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	96	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	88	26 - 138
13C12-OCDF	94	17 - 157
13C12-1278-TCDD (CRS)	91	35 - 197

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:40

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Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL134 SDG#: DOE01-10

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-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Chantilly VA 20151

SL134 SDG#: DOE01-10

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/02/2010 23:47	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 14:12	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 09:18	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 20:27	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 20:42	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 01:55	Richard A Shober	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10295002	10/27/2010 12:26	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10295002	10/22/2010 08:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 08:17	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:39	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2

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

Sample Description: SL-134-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-134-SA5C-SS-0.0-0.5

LLI Sample # SW 6118545
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:40

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL134 SDG#: DOE01-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:45	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 10:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:37	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201A	10/27/2010 13:17	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202A	10/27/2010 20:34	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10297243201A	10/25/2010 23:35	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201A	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202A	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101B	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401B	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL135 SDG#: DOE01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	19	U 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	56	J 19	380	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1

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

Sample Description: SL-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL135 SDG#: DOE01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	34	J 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190	1
	Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	3.8	U 3.8	9.5	5
10138	Acenaphthylene	208-96-8	1.9	U 1.9	9.5	5
10138	Anthracene	120-12-7	3.3	J 1.9	9.5	5
10138	Benzo(a)anthracene	56-55-3	11	3.8	9.5	5
10138	Benzo(a)pyrene	50-32-8	24	3.8	9.5	5
10138	Benzo(b)fluoranthene	205-99-2	48	3.8	9.5	5
10138	Benzo(g,h,i)perylene	191-24-2	8.5	J 3.8	9.5	5
10138	Benzo(k)fluoranthene	207-08-9	15	3.8	9.5	5
10138	Chrysene	218-01-9	21	1.9	9.5	5
10138	Dibenz(a,h)anthracene	53-70-3	3.8	U 3.8	9.5	5
10138	Fluoranthene	206-44-0	27	3.8	9.5	5
10138	Fluorene	86-73-7	3.8	U 3.8	9.5	5
10138	Indeno(1,2,3-cd)pyrene	193-39-5	5.9	J 3.8	9.5	5
10138	1-Methylnaphthalene	90-12-0	3.8	U 3.8	9.5	5
10138	2-Methylnaphthalene	91-57-6	3.8	U 3.8	9.5	5
10138	Naphthalene	91-20-3	5.5	J 3.8	9.5	5
10138	N-Nitrosodimethylamine	62-75-9	3.8	U 3.8	9.5	5
10138	Phenanthrene	85-01-8	18	3.8	9.5	5
10138	Pyrene	129-00-0	20	3.8	9.5	5
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1	1
10401	Dalapon	75-99-0	5.0	U 5.0	10	1
10401	2,4-DB	94-82-6	7.8	0.70	1.9	1
10401	Dicamba	1918-00-9	0.45	U 0.45	1.4	1
10401	Dinoseb	88-85-7	0.91	U 0.91	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.91	U 0.91	1.9	1
10401	MCPA	94-74-6	390	86	280	1
10401	MCPP (Mecoprop)	93-65-2	85	U 85	280	1
10401	2,4,5-T	93-76-5	0.093	U 0.093	0.19	1
10401	2,4,5-TP	93-72-1	0.085	U 0.085	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Sample Description: SL-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL135 SDG#: DOE01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.075 U	0.075	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.15 J	0.068	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.050 J	0.039	0.19	1
01363	Chlordane	57-74-9	3.6 U	3.6	3.9	1
01363	p,p-DDD	72-54-8	0.075 U	0.075	0.39	1
01363	p,p-DDE	72-55-9	0.77 U	0.77	0.77	1
01363	p,p-DDT	50-29-3	4.5 U	4.5	4.5	5
01363	Delta BHC	319-86-8	0.13 J	0.041	0.19	1
01363	Dieldrin	60-57-1	0.075 U	0.075	0.39	1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19	1
01363	Endosulfan II	33213-65-9	0.28 U	0.28	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.075 U	0.075	0.39	1
01363	Endrin	72-20-8	0.32 U	0.32	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.49 U	0.49	0.49	1
01363	Endrin Ketone	53494-70-5	0.075 U	0.075	0.39	1
01363	Heptachlor	76-44-8	0.068 U	0.068	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.19 U	0.19	0.19	1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9	1
01363	Mirex	2385-85-5	0.075 U	0.075	0.39	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.5	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	11 U	11	38	10
10225	Aroclor 5442	12642-23-8	11 U	11	38	10
10225	Aroclor 5460	11126-42-4	11 U	11	38	10
10225	PCB-1016	12674-11-2	3.8 U	3.8	19	10
10225	PCB-1221	11104-28-2	5.7 U	5.7	19	10
10225	PCB-1232	11141-16-5	5.9 U	5.9	19	10
10225	PCB-1242	53469-21-9	5.7 U	5.7	19	10
10225	PCB-1248	12672-29-6	3.8 U	3.8	19	10
10225	PCB-1254	11097-69-1	130	3.8	19	10
10225	PCB-1260	11096-82-5	48	3.8	19	10
10225	PCB-1262	37324-23-5	3.8 U	3.8	19	10
10225	PCB-1268	11100-14-4	3.8 U	3.8	19	10

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,800	5.66	22.5	1
07914	Boron	7440-42-8	11.3	1.00	5.63	1
01650	Calcium	7440-70-2	23,700	6.90	22.5	1
01654	Iron	7439-89-6	27,000	5.30	22.5	1
01656	Lithium	7439-93-2	20.7	0.25	2.3	1

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

Sample Description: SL-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL135 SDG#: DOE01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	5,480	2.86	11.3	1
06958	Manganese	7439-96-5	478	0.0878	0.563	1
10145	Phosphorus	7723-14-0	412	0.630	11.3	1
01662	Potassium	7440-09-7	3,870	20.3	56.3	1
01667	Sodium	7440-23-5	102 J	42.0	113	1
07968	Strontium	7440-24-6	54.0	0.0698	0.563	1
06969	Tin	7440-31-5	2.44 J	1.13	11.3	1
06970	Titanium	7440-32-6	1,080	2.14	5.63	5
10146	Zirconium	7440-67-7	5.78	0.945	5.63	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.393	0.0682	0.227	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.75	0.0682	0.455	2
06126	Barium	7440-39-3	115	0.123	0.455	2
06127	Beryllium	7440-41-7	0.693	0.0182	0.114	2
06128	Cadmium	7440-43-9	0.798	0.0409	0.114	2
06131	Chromium	7440-47-3	29.7	0.136	0.455	2
06132	Cobalt	7440-48-4	8.94	0.0227	0.114	2
06133	Copper	7440-50-8	14.6	0.0750	0.455	2
06135	Lead	7439-92-1	18.0	0.0118	0.227	2
06138	Molybdenum	7439-98-7	0.554	0.0568	0.114	2
06139	Nickel	7440-02-0	17.7	0.114	0.455	2
06141	Selenium	7782-49-2	0.280 J	0.0455	0.455	2
06142	Silver	7440-22-4	0.182	0.0136	0.114	2
06145	Thallium	7440-28-0	0.303	0.0341	0.114	2
06148	Vanadium	7440-62-2	58.8	0.0250	0.114	2
06149	Zinc	7440-66-6	186	1.59	8.52	5
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0462 J	0.0032	0.111	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.1	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.36 J	0.23	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	343	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

Sample Description: SL-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL135 SDG#: DOE01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.24	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	12.0	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

Sample Description: SL-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL135 SDG#: DOE01-11

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	0.0656	U	0.0656	1
11031	12378-PeCDD	40321-76-4	0.695	J	0.115	1
11031	123478-HxCDD	39227-28-6	1.26	J	0.277	1
11031	123678-HxCDD	57653-85-7	3.94	J	0.310	1
11031	123789-HxCDD	19408-74-3	2.50	J	0.237	1
11031	1234678-HpCDD	35822-46-9	100		0.216	1
11031	OCDD	3268-87-9	1,430	B	0.367	1
11031	2378-TCDF	51207-31-9	0.681	J	0.258	1
11031	12378-PeCDF	57117-41-6	0.139	U	0.139	1
11031	23478-PeCDF	57117-31-4	0.912	JBQ	0.171	1
11031	123478-HxCDF	70648-26-9	1.01	JB	0.183	1
11031	123678-HxCDF	57117-44-9	0.687	J	0.182	1
11031	123789-HxCDF	72918-21-9	0.749	J	0.109	1
11031	234678-HxCDF	60851-34-5	0.831	JB	0.195	1
11031	1234678-HpCDF	67562-39-4	16.1	B	0.121	1
11031	1234789-HpCDF	55673-89-7	1.10	J	0.142	1
11031	OCDF	39001-02-0	39.5	B	0.148	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	100	28 - 130
13C12-1234678-HpCDD	96	23 - 140
13C12-OCDD	107	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	123	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	96	26 - 138
13C12-OCDF	101	17 - 157
13C12-1278-TCDD (CRS)	102	35 - 197

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL135 SDG#: DOE01-11

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-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL135 SDG#: DOE01-11

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/03/2010 00:13	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 14:46	Joseph M Gambler	5
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 09:45	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 20:56	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 21:11	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 02:13	Richard A Shober	10
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10299001	10/28/2010 13:27	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10299001	10/27/2010 13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 08:20	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:43	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:48	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2

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

Sample Description: SL-135-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-135-SA5C-SS-0.0-0.5

LLI Sample # SW 6118546
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL135 SDG#: DOE01-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:48	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:48	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:48	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 16:55	Choon Y Tian	5
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:38	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201B	10/27/2010 13:31	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202B	10/27/2010 20:58	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10297243201A	10/25/2010 23:51	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201B	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202B	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101B	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401B	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL115 SDG#: DOE01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	220	U 220	670	1
04688	Benzidine	92-87-5	1,600	U 1,600	4,500	1
04688	Benzo(a)pyrene	50-32-8	23	J 22	220	1
04688	Benzo(b)fluoranthene	205-99-2	47	J 22	220	1
04688	Benzo(g,h,i)perylene	191-24-2	35	J 22	220	1
04688	Benzoic acid	65-85-0	220	U 220	670	1
04688	Benzyl alcohol	100-51-6	220	U 220	670	1
04688	4-Bromophenyl-phenylether	101-55-3	22	U 22	220	1
04688	Butylbenzylphthalate	85-68-7	65	J 22	220	1
04688	Di-n-butylphthalate	84-74-2	22	U 22	220	1
04688	Carbazole	86-74-8	22	U 22	220	1
04688	4-Chloro-3-methylphenol	59-50-7	45	U 45	220	1
04688	4-Chloroaniline	106-47-8	89	U 89	220	1
04688	bis(2-Chloroethoxy)methane	111-91-1	22	U 22	220	1
04688	bis(2-Chloroethyl)ether	111-44-4	22	U 22	220	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	22	U 22	220	1
04688	2-Chloronaphthalene	91-58-7	22	U 22	220	1
04688	2-Chlorophenol	95-57-8	22	U 22	220	1
04688	4-Chlorophenyl-phenylether	7005-72-3	45	U 45	220	1
04688	Chrysene	218-01-9	55	J 22	220	1
04688	Dibenzofuran	132-64-9	22	U 22	220	1
04688	1,2-Dichlorobenzene	95-50-1	22	U 22	220	1
04688	1,3-Dichlorobenzene	541-73-1	22	U 22	220	1
04688	1,4-Dichlorobenzene	106-46-7	22	U 22	220	1
04688	3,3'-Dichlorobenzidine	91-94-1	130	U 130	450	1
04688	2,4-Dichlorophenol	120-83-2	22	U 22	220	1
04688	Diethylphthalate	84-66-2	22	U 22	220	1
04688	2,4-Dimethylphenol	105-67-9	45	U 45	220	1
04688	3,5-Dimethylphenol	108-68-9	45	U 45	220	1
04688	Dimethylphthalate	131-11-3	22	U 22	220	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	220	U 220	670	1
04688	2,4-Dinitrophenol	51-28-5	890	U 890	2,700	1
04688	2,4-Dinitrotoluene	121-14-2	45	U 45	220	1
04688	2,6-Dinitrotoluene	606-20-2	22	U 22	220	1
04688	1,2-Diphenylhydrazine	122-66-7	22	U 22	220	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	120	J 22	450	1
04688	Fluoranthene	206-44-0	84	J 22	220	1
04688	Hexachlorobenzene	118-74-1	22	U 22	220	1
04688	Hexachlorobutadiene	87-68-3	89	U 89	220	1
04688	Hexachlorocyclopentadiene	77-47-4	220	U 220	670	1
04688	Hexachloroethane	67-72-1	22	U 22	220	1
04688	Isophorone	78-59-1	22	U 22	220	1
04688	2-Methylphenol	95-48-7	45	U 45	220	1
04688	4-Methylphenol	106-44-5	45	U 45	220	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	22	U 22	220	1
04688	3-Nitroaniline	99-09-2	45	U 45	220	1
04688	4-Nitroaniline	100-01-6	89	U 89	220	1

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

Sample Description: SL-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL115 SDG#: DOE01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Nitrobenzene	98-95-3	22	U 22	220	1
04688	2-Nitrophenol	88-75-5	22	U 22	220	1
04688	4-Nitrophenol	100-02-7	220	U 220	670	1
04688	N-Nitroso-di-n-propylamine	621-64-7	22	U 22	220	1
04688	N-Nitrosodiphenylamine	86-30-6	22	U 22	220	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	40	J 22	220	1
04688	Pentachlorophenol	87-86-5	220	U 220	670	1
04688	Phenanthrene	85-01-8	56	J 22	220	1
04688	Phenol	108-95-2	22	U 22	220	1
04688	Pyrene	129-00-0	76	J 22	220	1
04688	1,2,4-Trichlorobenzene	120-82-1	22	U 22	220	1
04688	2,4,5-Trichlorophenol	95-95-4	45	U 45	220	1
04688	2,4,6-Trichlorophenol	88-06-2	45	U 45	220	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	4.5	U 4.5	11	5
10138	Acenaphthylene	208-96-8	2.2	U 2.2	11	5
10138	Anthracene	120-12-7	3.3	J 2.2	11	5
10138	Benzo(a)anthracene	56-55-3	11	J 4.5	11	5
10138	Benzo(k)fluoranthene	207-08-9	11	J 4.5	11	5
10138	Dibenz(a,h)anthracene	53-70-3	4.5	U 4.5	11	5
10138	Fluorene	86-73-7	4.5	U 4.5	11	5
10138	Indeno(1,2,3-cd)pyrene	193-39-5	6.0	J 4.5	11	5
10138	1-Methylnaphthalene	90-12-0	4.5	U 4.5	11	5
10138	2-Methylnaphthalene	91-57-6	4.5	U 4.5	11	5
10138	Naphthalene	91-20-3	6.4	J 4.5	11	5
10138	N-Nitrosodimethylamine	62-75-9	14	U 4.5	11	5

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.6	U 1.6	4.8
10401	Dalapon	75-99-0	5.9	U 5.9	12
10401	2,4-DB	94-82-6	4.3	0.83	2.3
10401	Dicamba	1918-00-9	0.53	U 0.53	1.6
10401	Dinoseb	88-85-7	1.1	U 1.1	3.2
10401	2,4-DP (Dichlorprop)	120-36-5	1.1	U 1.1	2.3
10401	MCPA	94-74-6	360	100	330
10401	MCPP (Mecoprop)	93-65-2	100	U 100	330
10401	2,4,5-T	93-76-5	0.11	U 0.11	0.23
10401	2,4,5-TP	93-72-1	0.10	U 0.10	0.23

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Sample Description: SL-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL115 SDG#: DOE01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.088 U	0.088	0.22	1
01363	Alpha BHC	319-84-6	0.045 U	0.045	0.22	1
01363	Beta BHC	319-85-7	0.13 J	0.080	0.22	1
01363	Gamma BHC - Lindane	58-89-9	0.045 U	0.045	0.22	1
01363	Chlordane	57-74-9	2.0 U	2.0	4.5	1
01363	p,p-DDD	72-54-8	0.088 U	0.088	0.45	1
01363	p,p-DDE	72-55-9	0.40 U	0.40	0.45	1
01363	p,p-DDT	50-29-3	1.3 U	1.3	1.3	1
01363	Delta BHC	319-86-8	0.084 J	0.048	0.22	1
01363	Dieldrin	60-57-1	0.088 U	0.088	0.45	1
01363	Endosulfan I	959-98-8	0.059 U	0.059	0.22	1
01363	Endosulfan II	33213-65-9	0.10 U	0.10	0.45	1
01363	Endosulfan Sulfate	1031-07-8	0.088 U	0.088	0.45	1
01363	Endrin	72-20-8	0.10 U	0.10	0.45	1
01363	Endrin Aldehyde	7421-93-4	0.23 U	0.23	0.45	1
01363	Endrin Ketone	53494-70-5	0.088 U	0.088	0.45	1
01363	Heptachlor	76-44-8	0.080 U	0.080	0.22	1
01363	Heptachlor Epoxide	1024-57-3	0.070 U	0.070	0.22	1
01363	Methoxychlor	72-43-5	0.45 U	0.45	2.2	1
01363	Mirex	2385-85-5	0.31 U	0.31	0.45	1
01363	Toxaphene	8001-35-2	2.9 U	2.9	8.8	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.3 U	1.3	4.4	1
10225	Aroclor 5442	12642-23-8	1.3 U	1.3	4.4	1
10225	Aroclor 5460	11126-42-4	1.9 J	1.3	4.4	1
10225	PCB-1016	12674-11-2	0.44 U	0.44	2.3	1
10225	PCB-1221	11104-28-2	0.67 U	0.67	2.3	1
10225	PCB-1232	11141-16-5	0.70 U	0.70	2.3	1
10225	PCB-1242	53469-21-9	0.67 U	0.67	2.3	1
10225	PCB-1248	12672-29-6	0.44 U	0.44	2.3	1
10225	PCB-1254	11097-69-1	13	0.44	2.3	1
10225	PCB-1260	11096-82-5	6.2	0.44	2.3	1
10225	PCB-1262	37324-23-5	0.44 U	0.44	2.3	1
10225	PCB-1268	11100-14-4	0.44 U	0.44	2.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,400	6.59	26.2	1
07914	Boron	7440-42-8	12.4	1.17	6.55	1
01650	Calcium	7440-70-2	34,500	8.03	26.2	1

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

Sample Description: SL-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL115 SDG#: DOE01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	22,900	6.17	26.2	1
01656	Lithium	7439-93-2	18.2	0.29	2.6	1
01657	Magnesium	7439-95-4	5,880	3.33	13.1	1
06958	Manganese	7439-96-5	369	0.102	0.655	1
10145	Phosphorus	7723-14-0	507	0.734	13.1	1
01662	Potassium	7440-09-7	4,330	23.6	65.5	1
01667	Sodium	7440-23-5	148	48.9	131	1
07968	Strontium	7440-24-6	74.7	0.0813	0.655	1
06969	Tin	7440-31-5	2.55 J	1.31	13.1	1
06970	Titanium	7440-32-6	1,150	0.498	1.31	1
10146	Zirconium	7440-67-7	5.76 J	1.10	6.55	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.341	0.0802	0.267	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.18	0.0802	0.535	2
06126	Barium	7440-39-3	128	0.144	0.535	2
06127	Beryllium	7440-41-7	0.634	0.0214	0.134	2
06128	Cadmium	7440-43-9	0.650	0.0481	0.134	2
06131	Chromium	7440-47-3	31.0	0.160	0.535	2
06132	Cobalt	7440-48-4	10.8	0.0267	0.134	2
06133	Copper	7440-50-8	15.6	0.0882	0.535	2
06135	Lead	7439-92-1	17.3	0.0139	0.267	2
06138	Molybdenum	7439-98-7	0.589	0.0668	0.134	2
06139	Nickel	7440-02-0	19.0	0.134	0.535	2
06141	Selenium	7782-49-2	0.240 J	0.0535	0.535	2
06142	Silver	7440-22-4	0.0560 J	0.0160	0.134	2
06145	Thallium	7440-28-0	0.332	0.0401	0.134	2
06148	Vanadium	7440-62-2	59.7	0.0294	0.134	2
06149	Zinc	7440-66-6	277	1.87	10.0	5
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0354 J	0.0036	0.127	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.0	1.1	1.3	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	12.0 U	12.0	40.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.4	0.27	1.3	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	352	10.0	10.0	1

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

Sample Description: SL-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL115 SDG#: DOE01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	ASTM D1498		mV	mV	mV	
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.96	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	28a Moisture Content by 160.3	n.a.	25.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL115 SDG#: DOE01-12

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	0.153	U	0.153	1
11031	12378-PeCDD	40321-76-4	0.767	JQ	0.184	1
11031	123478-HxCDD	39227-28-6	1.35	J	0.380	1
11031	123678-HxCDD	57653-85-7	2.90	J	0.397	1
11031	123789-HxCDD	19408-74-3	2.85	JQ	0.388	1
11031	1234678-HpCDD	35822-46-9	71.8		0.413	1
11031	OCDD	3268-87-9	1,110	B	0.472	1
11031	2378-TCDF	51207-31-9	0.333	JQ	0.295	1
11031	12378-PeCDF	57117-41-6	0.194	U	0.194	1
11031	23478-PeCDF	57117-31-4	1.26	JBQ	0.180	1
11031	123478-HxCDF	70648-26-9	1.46	JB	0.425	1
11031	123678-HxCDF	57117-44-9	1.04	JQ	0.419	1
11031	123789-HxCDF	72918-21-9	0.849	JQ	0.420	1
11031	234678-HxCDF	60851-34-5	2.40	JBQ	0.400	1
11031	1234678-HpCDF	67562-39-4	17.2	B	0.361	1
11031	1234789-HpCDF	55673-89-7	0.933	J	0.443	1
11031	OCDF	39001-02-0	23.1	B	0.267	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	49	25 - 164
13C12-12378-PeCDD	58	25 - 181
13C12-123478-HxCDD	63	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	50	24 - 169
13C12-12378-PeCDF	56	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	97	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-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL115 SDG#: DOE01-12

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-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL115 SDG#: DOE01-12

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/03/2010 00:39	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/08/2010 15:20	Joseph M Gambler	5
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 10:13	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 21:26	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 02:32	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	102990001	10/28/2010 00:20	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	102990001	10/27/2010 13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:54	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:52	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2

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

Sample Description: SL-115-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA5C-SS-0.0-0.5

LLI Sample # SW 6118547
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL115 SDG#: DOE01-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:52	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:52	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:52	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 16:57	Choon Y Tian	5
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:40	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201B	10/27/2010 14:15	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202B	10/27/2010 22:10	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10297243201A	10/26/2010 00:07	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201B	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202B	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101B	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401B	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-116-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-116-SA5C-SS-0.0-0.5

LLI Sample # SW 6118548
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 14:25

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL116 SDG#: DOE01-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	210	U 210	630	1
04688	Benidine	92-87-5	1,500	U 1,500	4,200	1
04688	Benzo(g,h,i)perylene	191-24-2	38	J 21	210	1
04688	Benzoic acid	65-85-0	210	U 210	630	1
04688	Benzyl alcohol	100-51-6	210	U 210	630	1
04688	4-Bromophenyl-phenylether	101-55-3	21	U 21	210	1
04688	Butylbenzylphthalate	85-68-7	43	J 21	210	1
04688	Di-n-butylphthalate	84-74-2	21	U 21	210	1
04688	Carbazole	86-74-8	21	U 21	210	1
04688	4-Chloro-3-methylphenol	59-50-7	42	U 42	210	1
04688	4-Chloroaniline	106-47-8	83	U 83	210	1
04688	bis(2-Chloroethoxy)methane	111-91-1	21	U 21	210	1
04688	bis(2-Chloroethyl)ether	111-44-4	21	U 21	210	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	21	U 21	210	1
04688	2-Chloronaphthalene	91-58-7	21	U 21	210	1
04688	2-Chlorophenol	95-57-8	21	U 21	210	1
04688	4-Chlorophenyl-phenylether	7005-72-3	42	U 42	210	1
04688	Dibenzofuran	132-64-9	21	J 21	210	1
04688	1,2-Dichlorobenzene	95-50-1	21	U 21	210	1
04688	1,3-Dichlorobenzene	541-73-1	21	U 21	210	1
04688	1,4-Dichlorobenzene	106-46-7	21	U 21	210	1
04688	3,3'-Dichlorobenzidine	91-94-1	130	U 130	420	1
04688	2,4-Dichlorophenol	120-83-2	21	U 21	210	1
04688	Diethylphthalate	84-66-2	21	U 21	210	1
04688	2,4-Dimethylphenol	105-67-9	42	U 42	210	1
04688	3,5-Dimethylphenol	108-68-9	42	U 42	210	1
04688	Dimethylphthalate	131-11-3	21	U 21	210	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	210	U 210	630	1
04688	2,4-Dinitrophenol	51-28-5	830	U 830	2,500	1
04688	2,4-Dinitrotoluene	121-14-2	42	U 42	210	1
04688	2,6-Dinitrotoluene	606-20-2	21	U 21	210	1
04688	1,2-Diphenylhydrazine	122-66-7	21	U 21	210	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	140	J 21	420	1
04688	Hexachlorobenzene	118-74-1	21	U 21	210	1
04688	Hexachlorobutadiene	87-68-3	83	U 83	210	1
04688	Hexachlorocyclopentadiene	77-47-4	210	U 210	630	1
04688	Hexachloroethane	67-72-1	21	U 21	210	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	27	J 21	210	1
04688	Isophorone	78-59-1	21	U 21	210	1
04688	2-Methylnaphthalene	91-57-6	21	J 21	210	1
04688	2-Methylphenol	95-48-7	42	U 42	210	1
04688	4-Methylphenol	106-44-5	42	U 42	210	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	21	U 21	210	1
04688	3-Nitroaniline	99-09-2	42	U 42	210	1
04688	4-Nitroaniline	100-01-6	83	U 83	210	1
04688	Nitrobenzene	98-95-3	21	U 21	210	1
04688	2-Nitrophenol	88-75-5	21	U 21	210	1

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

Sample Description: SL-116-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-116-SA5C-SS-0.0-0.5

LLI Sample # SW 6118548
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 14:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL116 SDG#: DOE01-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	4-Nitrophenol	100-02-7	210	U 210	630	1
04688	N-Nitroso-di-n-propylamine	621-64-7	21	U 21	210	1
04688	N-Nitrosodiphenylamine	86-30-6	21	U 21	210	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	49	J 21	210	1
04688	Pentachlorophenol	87-86-5	210	U 210	630	1
04688	Phenanthrene	85-01-8	140	J 21	210	1
04688	Phenol	108-95-2	21	U 21	210	1
04688	1,2,4-Trichlorobenzene	120-82-1	21	U 21	210	1
04688	2,4,5-Trichlorophenol	95-95-4	42	U 42	210	1
04688	2,4,6-Trichlorophenol	88-06-2	42	U 42	210	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.						
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	4.2	U 4.2	10	5
10138	Acenaphthylene	208-96-8	7.7	J 2.1	10	5
10138	Anthracene	120-12-7	12	2.1	10	5
10138	Benzo(a)anthracene	56-55-3	93	4.2	10	5
10138	Benzo(a)pyrene	50-32-8	90	4.2	10	5
10138	Benzo(b)fluoranthene	205-99-2	170	4.2	10	5
10138	Benzo(k)fluoranthene	207-08-9	58	4.2	10	5
10138	Chrysene	218-01-9	140	2.1	10	5
10138	Dibenz(a,h)anthracene	53-70-3	8.8	J 4.2	10	5
10138	Fluoranthene	206-44-0	290	4.2	10	5
10138	Fluorene	86-73-7	4.2	U 4.2	10	5
10138	1-Methylnaphthalene	90-12-0	6.7	J 4.2	10	5
10138	Naphthalene	91-20-3	8.9	J 4.2	10	5
10138	N-Nitrosodimethylamine	62-75-9	4.2	U 4.2	10	5
10138	Pyrene	129-00-0	230	4.2	10	5
Reporting limits were raised due to interference from the sample matrix.						
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.5	U 1.5	4.5	1
10401	Dalapon	75-99-0	5.5	U 5.5	11	1
10401	2,4-DB	94-82-6	4.7	0.78	2.1	1
10401	Dicamba	1918-00-9	0.50	U 0.50	1.5	1
10401	Dinoseb	88-85-7	1.0	U 1.0	3.0	1
10401	2,4-DP (Dichlorprop)	120-36-5	1.0	U 1.0	2.1	1
10401	MCPA	94-74-6	95	U 95	310	1
10401	MCPP (Mecoprop)	93-65-2	550	94	310	1
10401	2,4,5-T	93-76-5	0.11	J 0.10	0.21	1
10401	2,4,5-TP	93-72-1	0.094	U 0.094	0.21	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
MCPP was detected in the method blank at a concentration of 77J ug/kg. A						

Sample Description: SL-116-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-116-SA5C-SS-0.0-0.5

LLI Sample # SW 6118548
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 14:25

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL116 SDG#: DOE01-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
reextraction was performed outside the sample hold time. Results from the reextraction are within the limits. Similar results were obtained in both extractions. The original extraction data is reported.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.083 U	0.083	0.21	1
01363	Alpha BHC	319-84-6	0.043 U	0.043	0.21	1
01363	Beta BHC	319-85-7	0.075 U	0.075	0.21	1
01363	Gamma BHC - Lindane	58-89-9	0.043 U	0.043	0.21	1
01363	Chlordane	57-74-9	12 U	12	12	1
01363	p,p-DDD	72-54-8	0.083 U	0.083	0.43	1
01363	p,p-DDE	72-55-9	1.1 U	1.1	1.1	1
01363	p,p-DDT	50-29-3	1.5 U	1.5	1.5	1
01363	Delta BHC	319-86-8	0.066 J	0.045	0.21	1
01363	Dieldrin	60-57-1	0.083 U	0.083	0.43	1
01363	Endosulfan I	959-98-8	0.055 U	0.055	0.21	1
01363	Endosulfan II	33213-65-9	0.14 U	0.14	0.43	1
01363	Endosulfan Sulfate	1031-07-8	0.73 U	0.73	0.73	1
01363	Endrin	72-20-8	0.083 U	0.083	0.43	1
01363	Endrin Aldehyde	7421-93-4	0.51 U	0.51	0.51	1
01363	Endrin Ketone	53494-70-5	0.083 U	0.083	0.43	1
01363	Heptachlor	76-44-8	0.35	0.075	0.21	1
01363	Heptachlor Epoxide	1024-57-3	0.066 U	0.066	0.21	1
01363	Methoxychlor	72-43-5	0.43 U	0.43	2.1	1
01363	Mirex	2385-85-5	1.6 U	1.6	1.6	1
01363	Toxaphene	8001-35-2	2.8 U	2.8	8.3	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.3 U	1.3	4.1	1
10225	Aroclor 5442	12642-23-8	1.3 U	1.3	4.1	1
10225	Aroclor 5460	11126-42-4	8.5	1.3	4.1	1
10225	PCB-1016	12674-11-2	0.41 U	0.41	2.1	1
10225	PCB-1221	11104-28-2	0.63 U	0.63	2.1	1
10225	PCB-1232	11141-16-5	0.65 U	0.65	2.1	1
10225	PCB-1242	53469-21-9	0.63 U	0.63	2.1	1
10225	PCB-1248	12672-29-6	0.41 U	0.41	2.1	1
10225	PCB-1254	11097-69-1	7.4	0.41	2.1	1
10225	PCB-1260	11096-82-5	7.7	0.41	2.1	1
10225	PCB-1262	37324-23-5	0.41 U	0.41	2.1	1
10225	PCB-1268	11100-14-4	0.41 U	0.41	2.1	1

Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg

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Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	9,700	6.05	24.1	1
07914	Boron	7440-42-8	6.15	1.07	6.02	1
01650	Calcium	7440-70-2	3,380	7.38	24.1	1
01654	Iron	7439-89-6	15,800	5.67	24.1	1
01656	Lithium	7439-93-2	12.6	0.26	2.4	1
01657	Magnesium	7439-95-4	3,320	3.06	12.0	1
06958	Manganese	7439-96-5	237	0.0939	0.602	1
10145	Phosphorus	7723-14-0	452	0.674	12.0	1
01662	Potassium	7440-09-7	2,110	21.7	60.2	1
01667	Sodium	7440-23-5	125	44.9	120	1
07968	Strontium	7440-24-6	20.4	0.0746	0.602	1
06969	Tin	7440-31-5	2.33 J	1.20	12.0	1
06970	Titanium	7440-32-6	801	0.457	1.20	1
10146	Zirconium	7440-67-7	2.30 J	1.01	6.02	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.393	0.0729	0.243	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.95	0.0729	0.486	2
06126	Barium	7440-39-3	112	0.131	0.486	2
06127	Beryllium	7440-41-7	0.431	0.0194	0.122	2
06128	Cadmium	7440-43-9	0.974	0.0437	0.122	2
06131	Chromium	7440-47-3	24.8	0.146	0.486	2
06132	Cobalt	7440-48-4	7.15	0.0243	0.122	2
06133	Copper	7440-50-8	20.6	0.0802	0.486	2
06135	Lead	7439-92-1	20.9	0.0126	0.243	2
06138	Molybdenum	7439-98-7	0.719	0.0608	0.122	2
06139	Nickel	7440-02-0	16.8	0.122	0.486	2
06141	Selenium	7782-49-2	0.151 J	0.0486	0.486	2
06142	Silver	7440-22-4	0.107 J	0.0146	0.122	2
06145	Thallium	7440-28-0	0.194	0.0365	0.122	2
06148	Vanadium	7440-62-2	40.5	0.0267	0.122	2
06149	Zinc	7440-66-6	616	3.40	18.2	10
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0278 J	0.0035	0.122	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	1.0	1.3	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	11.3 U	11.3	37.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.37 J	0.25	1.3	1

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

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CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	360	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.41	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	20.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

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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	0.255	JQ 0.167	1.25	1
11031	12378-PeCDD	40321-76-4	2.17	JQ 0.470	6.26	1
11031	123478-HxCDD	39227-28-6	3.83	JQ 0.527	6.26	1
11031	123678-HxCDD	57653-85-7	14.2	0.544	6.26	1
11031	123789-HxCDD	19408-74-3	7.82	0.503	6.26	1
11031	1234678-HpCDD	35822-46-9	362	0.420	6.26	1
11031	OCDD	3268-87-9	3,820	B 0.608	12.5	1
11031	2378-TCDF	51207-31-9	0.267	JQ 0.184	1.25	1
11031	12378-PeCDF	57117-41-6	0.142	U 0.142	6.26	1
11031	23478-PeCDF	57117-31-4	1.57	JB 0.133	6.26	1
11031	123478-HxCDF	70648-26-9	1.79	JBQ 0.332	6.26	1
11031	123678-HxCDF	57117-44-9	1.39	J 0.325	6.26	1
11031	123789-HxCDF	72918-21-9	0.530	JQ 0.270	6.26	1
11031	234678-HxCDF	60851-34-5	2.05	JB 0.281	6.26	1
11031	1234678-HpCDF	67562-39-4	38.0	B 0.261	6.26	1
11031	1234789-HpCDF	55673-89-7	2.67	J 0.274	6.26	1
11031	OCDF	39001-02-0	93.5	B 0.201	12.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	104	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	113	23 - 140
13C12-OCDD	136	17 - 157
13C12-2378-TCDF	84	24 - 169
13C12-12378-PeCDF	96	24 - 185
13C12-23478-PeCDF	107	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	106	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	109	26 - 138
13C12-OCDF	128	17 - 157
13C12-1278-TCDD (CRS)	97	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-116-SA5C-SS-0.0-0.5 Soil
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SL-116-SA5C-SS-0.0-0.5

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SL116 SDG#: DOE01-13

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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SL116 SDG#: DOE01-13

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/03/2010 01:05	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/09/2010 02:28	Gregory J Drahovsky	5
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 10:40	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 21:41	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 02:51	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10299001	10/28/2010 01:20	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10299001	10/27/2010 13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 19:58	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 10:55	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2

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

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SL116 SDG#: DOE01-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 10:55	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 10:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 10:55	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 16:59	Choon Y Tian	10
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:41	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201B	10/27/2010 14:30	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202B	10/27/2010 22:35	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/26/2010 00:30	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201B	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202B	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101B	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401B	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1



Analysis Report

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REVISED

Sample Description: SL-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL117 SDG#: DOE01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	210	U 210	630	1
04688	Benidine	92-87-5	1,500	U 1,500	4,200	1
04688	Benzo(g,h,i)perylene	191-24-2	90	J 21	210	1
04688	Benzoic acid	65-85-0	210	U 210	630	1
04688	Benzyl alcohol	100-51-6	210	U 210	630	1
04688	4-Bromophenyl-phenylether	101-55-3	21	U 21	210	1
04688	Butylbenzylphthalate	85-68-7	130	J 21	210	1
04688	Di-n-butylphthalate	84-74-2	100	J 21	210	1
04688	Carbazole	86-74-8	21	J 21	210	1
04688	4-Chloro-3-methylphenol	59-50-7	42	U 42	210	1
04688	4-Chloroaniline	106-47-8	84	U 84	210	1
04688	bis(2-Chloroethoxy)methane	111-91-1	21	U 21	210	1
04688	bis(2-Chloroethyl)ether	111-44-4	21	U 21	210	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	21	U 21	210	1
04688	2-Chloronaphthalene	91-58-7	21	U 21	210	1
04688	2-Chlorophenol	95-57-8	21	U 21	210	1
04688	4-Chlorophenyl-phenylether	7005-72-3	42	U 42	210	1
04688	Dibenz(a,h)anthracene	53-70-3	26	J 21	210	1
04688	Dibenzofuran	132-64-9	28	J 21	210	1
04688	1,2-Dichlorobenzene	95-50-1	21	U 21	210	1
04688	1,3-Dichlorobenzene	541-73-1	21	U 21	210	1
04688	1,4-Dichlorobenzene	106-46-7	21	U 21	210	1
04688	3,3'-Dichlorobenzidine	91-94-1	130	U 130	420	1
04688	2,4-Dichlorophenol	120-83-2	21	U 21	210	1
04688	Diethylphthalate	84-66-2	21	U 21	210	1
04688	2,4-Dimethylphenol	105-67-9	42	U 42	210	1
04688	3,5-Dimethylphenol	108-68-9	42	U 42	210	1
04688	Dimethylphthalate	131-11-3	21	U 21	210	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	210	U 210	630	1
04688	2,4-Dinitrophenol	51-28-5	840	U 840	2,500	1
04688	2,4-Dinitrotoluene	121-14-2	42	U 42	210	1
04688	2,6-Dinitrotoluene	606-20-2	21	U 21	210	1
04688	1,2-Diphenylhydrazine	122-66-7	21	U 21	210	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	390	J 21	420	1
04688	Hexachlorobenzene	118-74-1	21	U 21	210	1
04688	Hexachlorobutadiene	87-68-3	84	U 84	210	1
04688	Hexachlorocyclopentadiene	77-47-4	210	U 210	630	1
04688	Hexachloroethane	67-72-1	21	U 21	210	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	50	J 21	210	1
04688	Isophorone	78-59-1	21	U 21	210	1
04688	1-Methylnaphthalene	90-12-0	52	J 21	210	1
04688	2-Methylnaphthalene	91-57-6	51	J 21	210	1
04688	2-Methylphenol	95-48-7	42	U 42	210	1
04688	4-Methylphenol	106-44-5	42	U 42	210	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	23	J 21	210	1
04688	2-Nitroaniline	88-74-4	21	U 21	210	1
04688	3-Nitroaniline	99-09-2	42	U 42	210	1

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

Sample Description: SL-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL117 SDG#: DOE01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	4-Nitroaniline	100-01-6	84	U 84	210	1
04688	Nitrobenzene	98-95-3	21	U 21	210	1
04688	2-Nitrophenol	88-75-5	21	U 21	210	1
04688	4-Nitrophenol	100-02-7	210	U 210	630	1
04688	N-Nitroso-di-n-propylamine	621-64-7	21	U 21	210	1
04688	N-Nitrosodiphenylamine	86-30-6	21	U 21	210	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	61	J 21	210	1
04688	Pentachlorophenol	87-86-5	210	U 210	630	1
04688	Phenol	108-95-2	21	U 21	210	1
04688	1,2,4-Trichlorobenzene	120-82-1	21	U 21	210	1
04688	2,4,5-Trichlorophenol	95-95-4	42	U 42	210	1
04688	2,4,6-Trichlorophenol	88-06-2	42	U 42	210	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.						
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	13	4.2	11	5
10138	Acenaphthylene	208-96-8	5.1	J 2.1	11	5
10138	Anthracene	120-12-7	46	2.1	11	5
10138	Benzo(a)anthracene	56-55-3	130	4.2	11	5
10138	Benzo(a)pyrene	50-32-8	100	4.2	11	5
10138	Benzo(b)fluoranthene	205-99-2	160	4.2	11	5
10138	Benzo(k)fluoranthene	207-08-9	54	4.2	11	5
10138	Chrysene	218-01-9	180	2.1	11	5
10138	Fluoranthene	206-44-0	280	4.2	11	5
10138	Fluorene	86-73-7	11	4.2	11	5
10138	N-Nitrosodimethylamine	62-75-9	4.2	U 4.2	11	5
10138	Phenanthrene	85-01-8	200	4.2	11	5
10138	Pyrene	129-00-0	260	4.2	11	5
Reporting limits were raised due to interference from the sample matrix.						
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.5	U 1.5	4.5	1
10401	Dalapon	75-99-0	5.6	U 5.6	11	1
10401	2,4-DB	94-82-6	0.78	U 0.78	2.1	1
10401	Dicamba	1918-00-9	0.51	U 0.51	1.5	1
10401	Dinoseb	88-85-7	1.0	U 1.0	3.0	1
10401	2,4-DP (Dichlorprop)	120-36-5	1.0	U 1.0	2.1	1
10401	MCPA	94-74-6	190	J 96	320	1
10401	MCPP (Mecoprop)	93-65-2	95	U 95	320	1
10401	2,4,5-T	93-76-5	0.32	0.10	0.21	1
10401	2,4,5-TP	93-72-1	0.095	U 0.095	0.21	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
The surrogate data is outside the QC limits due to unresolvable matrix						

Sample Description: SL-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL117 SDG#: DOE01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	problems evident in the sample chromatogram.					
	Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.083 U	0.083	0.21	1
01363	Alpha BHC	319-84-6	0.043 U	0.043	0.21	1
01363	Beta BHC	319-85-7	0.28	0.076	0.21	1
01363	Gamma BHC - Lindane	58-89-9	0.091 J	0.043	0.21	1
01363	Chlordane	57-74-9	9.7 U	9.7	9.7	1
01363	p,p-DDD	72-54-8	0.42 U	0.42	2.1	5
01363	p,p-DDE	72-55-9	0.91 U	0.91	0.91	1
01363	p,p-DDT	50-29-3	5.4 U	5.4	5.4	5
01363	Delta BHC	319-86-8	0.045 U	0.045	0.21	1
01363	Dieldrin	60-57-1	0.083 U	0.083	0.43	1
01363	Endosulfan I	959-98-8	0.056 U	0.056	0.21	1
01363	Endosulfan II	33213-65-9	0.42 U	0.42	2.1	5
01363	Endosulfan Sulfate	1031-07-8	0.42 U	0.42	2.1	5
01363	Endrin	72-20-8	0.42 U	0.42	2.1	5
01363	Endrin Aldehyde	7421-93-4	0.42 U	0.42	2.1	5
01363	Endrin Ketone	53494-70-5	3.8	0.42	2.1	5
01363	Heptachlor	76-44-8	0.15 J	0.076	0.21	1
01363	Heptachlor Epoxide	1024-57-3	1.1	0.11	0.21	1
01363	Methoxychlor	72-43-5	7.1 U	7.1	10	5
01363	Mirex	2385-85-5	0.42 U	0.42	2.1	5
01363	Toxaphene	8001-35-2	14 U	14	42	5

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

	Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	6.3 U	6.3	21	5
10225	Aroclor 5442	12642-23-8	6.3 U	6.3	21	5
10225	Aroclor 5460	11126-42-4	19 J	6.3	21	5
10225	PCB-1016	12674-11-2	2.1 U	2.1	11	5
10225	PCB-1221	11104-28-2	3.2 U	3.2	11	5
10225	PCB-1232	11141-16-5	3.3 U	3.3	11	5
10225	PCB-1242	53469-21-9	3.2 U	3.2	11	5
10225	PCB-1248	12672-29-6	2.1 U	2.1	11	5
10225	PCB-1254	11097-69-1	24	2.1	11	5
10225	PCB-1260	11096-82-5	12	2.1	11	5
10225	PCB-1262	37324-23-5	2.1 U	2.1	11	5
10225	PCB-1268	11100-14-4	2.1 U	2.1	11	5

	Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,900	6.29	25.0	1
07914	Boron	7440-42-8	8.54	1.11	6.25	1

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

Sample Description: SL-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL117 SDG#: DOE01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01650	Calcium	7440-70-2	4,780	7.66	25.0	1
01654	Iron	7439-89-6	21,200	5.89	25.0	1
01656	Lithium	7439-93-2	19.8	0.28	2.5	1
01657	Magnesium	7439-95-4	3,850	3.18	12.5	1
06958	Manganese	7439-96-5	231	0.0975	0.625	1
10145	Phosphorus	7723-14-0	433	0.700	12.5	1
01662	Potassium	7440-09-7	2,310	22.5	62.5	1
01667	Sodium	7440-23-5	137	46.6	125	1
07968	Strontium	7440-24-6	28.1	0.0775	0.625	1
06969	Tin	7440-31-5	3.63 J	1.25	12.5	1
06970	Titanium	7440-32-6	987	0.475	1.25	1
10146	Zirconium	7440-67-7	4.74 J	1.05	6.25	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	1.12	0.0750	0.250	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.00	0.0750	0.500	2
06126	Barium	7440-39-3	145	0.135	0.500	2
06127	Beryllium	7440-41-7	0.680	0.0200	0.125	2
06128	Cadmium	7440-43-9	1.84	0.0450	0.125	2
06131	Chromium	7440-47-3	55.4	0.150	0.500	2
06132	Cobalt	7440-48-4	8.56	0.0250	0.125	2
06133	Copper	7440-50-8	32.7	0.0825	0.500	2
06135	Lead	7439-92-1	47.3	0.0130	0.250	2
06138	Molybdenum	7439-98-7	1.99	0.0625	0.125	2
06139	Nickel	7440-02-0	37.5	0.125	0.500	2
06141	Selenium	7782-49-2	0.231 J	0.0500	0.500	2
06142	Silver	7440-22-4	0.221	0.0150	0.125	2
06145	Thallium	7440-28-0	0.269	0.0375	0.125	2
06148	Vanadium	7440-62-2	52.8	0.0275	0.125	2
06149	Zinc	7440-66-6	593	3.50	18.8	10
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0884 J	0.0036	0.124	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	1.0	1.3	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	11.4 U	11.4	37.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.56 J	0.25	1.3	1
	ASTM D1498		mV	mV	mV	

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

Sample Description: SL-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL117 SDG#: DOE01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	360	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.93	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	20.8	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

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14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL117 SDG#: DOE01-14

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	0.955 JQ	0.545	1.26	1
11031	12378-PeCDD	40321-76-4	10.9	1.05	6.31	1
11031	123478-HxCDD	39227-28-6	20.9	0.919	6.31	1
11031	123678-HxCDD	57653-85-7	114	0.956	6.31	1
11031	123789-HxCDD	19408-74-3	47.8	1.01	6.31	1
11031	1234678-HpCDD	35822-46-9	2,930 EB	1.39	6.31	1
11031	OCDD	3268-87-9	24,700 EB	1.60	12.6	1
11031	2378-TCDF	51207-31-9	2.38	0.391	1.26	1
11031	12378-PeCDF	57117-41-6	8.65	0.350	6.31	1
11031	23478-PeCDF	57117-31-4	13.5	0.334	6.31	1
11031	123478-HxCDF	70648-26-9	23.7	0.637	6.31	1
11031	123678-HxCDF	57117-44-9	15.4	0.616	6.31	1
11031	123789-HxCDF	72918-21-9	9.49	0.585	6.31	1
11031	234678-HxCDF	60851-34-5	20.2 B	0.639	6.31	1
11031	1234678-HpCDF	67562-39-4	337 B	0.784	6.31	1
11031	1234789-HpCDF	55673-89-7	18.5	0.931	6.31	1
11031	OCDF	39001-02-0	585	0.534	12.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	67	28 - 130
13C12-123789-HxCDD	66	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	56	26 - 123
13C12-234678-HxCDF	54	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	57	28 - 143
13C12-1234789-HpCDF	60	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

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

Sample Description: SL-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL117 SDG#: DOE01-14

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-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL117 SDG#: DOE01-14

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/03/2010 01:31	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/10/2010 23:10	Gregory J Drahovsky	5
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 12:02	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 21:55	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 22:10	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 03:09	Richard A Shober	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10306001	11/04/2010 16:44	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10306001	11/02/2010 14:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 20:02	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 11:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2

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

Sample Description: SL-117-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-117-SA5C-SS-0.0-0.5

LLI Sample # SW 6118549
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:50

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL117 SDG#: DOE01-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 11:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 11:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 11:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 17:01	Choon Y Tian	10
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:42	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201B	10/27/2010 14:45	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202B	10/27/2010 22:59	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/26/2010 00:54	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201B	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202B	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101B	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401B	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Sample Description: SL-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL120 SDG#: DOE01-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benizidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzo(b)fluoranthene	205-99-2	22	J 18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	22	J 18	180	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	710	U 710	2,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	66	J 18	350	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	18	J 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

CDM Federal Programs Corp.

Submitted: 10/21/2010 08:50

14420 Albemarle Point Place

Reported: 01/20/2011 13:28

Suite 210

Chantilly VA 20151

SL120 SDG#: DOE01-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	20	J 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180	1
	Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.41	J 0.35	1.8	1
10138	Anthracene	120-12-7	1.0	J 0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	3.7	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	5.7	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	3.9	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4	U 6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19	1
10138	Chrysene	218-01-9	7.7	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	1.9	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Fluoranthene	206-44-0	7.8	0.71	1.8	1
10138	Fluorene	86-73-7	0.71	U 0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73	J 0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.95	J 0.71	1.8	1
10138	Naphthalene	91-20-3	0.98	J 0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	1.4	J 0.71	1.8	1
10138	Phenanthrene	85-01-8	4.8	0.71	1.8	1
10138	Pyrene	129-00-0	7.3	0.71	1.8	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg
10401	2,4-D	94-75-7	1.3	U	1.3	3.8
10401	Dalapon	75-99-0	4.7	U	4.7	9.6
10401	2,4-DB	94-82-6	0.66	U	0.66	1.8
10401	Dicamba	1918-00-9	0.43	U	0.43	1.3
10401	Dinoseb	88-85-7	0.85	U	0.85	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.85	U	0.85	1.8
10401	MCPA	94-74-6	81	U	81	270
10401	MCPP (Mecoprop)	93-65-2	80	U	80	270
10401	2,4,5-T	93-76-5	0.087	U	0.087	0.18
10401	2,4,5-TP	93-72-1	0.080	U	0.080	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Sample Description: SL-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL120 SDG#: DOE01-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	6.9 U	6.9	6.9	1
01363	p,p-DDD	72-54-8	0.070 U	0.070	0.36	1
01363	p,p-DDE	72-55-9	1.2 U	1.2	1.2	1
01363	p,p-DDT	50-29-3	2.4 U	2.4	2.4	1
01363	Delta BHC	319-86-8	0.12 J	0.038	0.18	1
01363	Dieldrin	60-57-1	0.070 U	0.070	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.10 U	0.10	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.070 U	0.070	0.36	1
01363	Endrin	72-20-8	0.13 U	0.13	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.39 U	0.39	0.39	1
01363	Endrin Ketone	53494-70-5	0.070 U	0.070	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.13 U	0.13	0.18	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.11 U	0.11	0.36	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	7.0	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	5.3 U	5.3	18	5
10225	Aroclor 5442	12642-23-8	5.3 U	5.3	18	5
10225	Aroclor 5460	11126-42-4	8.4 J	5.3	18	5
10225	PCB-1016	12674-11-2	1.8 U	1.8	9.0	5
10225	PCB-1221	11104-28-2	2.7 U	2.7	9.0	5
10225	PCB-1232	11141-16-5	2.8 U	2.8	9.0	5
10225	PCB-1242	53469-21-9	2.7 U	2.7	9.0	5
10225	PCB-1248	12672-29-6	1.8 U	1.8	9.0	5
10225	PCB-1254	11097-69-1	21	1.8	9.0	5
10225	PCB-1260	11096-82-5	16	1.8	9.0	5
10225	PCB-1262	37324-23-5	1.8 U	1.8	9.0	5
10225	PCB-1268	11100-14-4	1.8 U	1.8	9.0	5

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,700	5.19	20.6	1
07914	Boron	7440-42-8	7.13	0.918	5.16	1
01650	Calcium	7440-70-2	3,570	6.32	20.6	1
01654	Iron	7439-89-6	23,100	4.86	20.6	1
01656	Lithium	7439-93-2	29.3	0.23	2.1	1

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

Sample Description: SL-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL120 SDG#: DOE01-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	5,250	2.62	10.3	1
06958	Manganese	7439-96-5	327	0.0805	0.516	1
10145	Phosphorus	7723-14-0	408	0.578	10.3	1
01662	Potassium	7440-09-7	3,470	18.6	51.6	1
01667	Sodium	7440-23-5	80.5 J	38.5	103	1
07968	Strontium	7440-24-6	21.7	0.0640	0.516	1
06969	Tin	7440-31-5	2.74 J	1.03	10.3	1
06970	Titanium	7440-32-6	1,110	1.96	5.16	5
10146	Zirconium	7440-67-7	4.50 J	0.867	5.16	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.271	0.0631	0.210	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	10.6	0.0631	0.421	2
06126	Barium	7440-39-3	122	0.114	0.421	2
06127	Beryllium	7440-41-7	0.764	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.413	0.0379	0.105	2
06131	Chromium	7440-47-3	31.2	0.126	0.421	2
06132	Cobalt	7440-48-4	7.98	0.0210	0.105	2
06133	Copper	7440-50-8	24.1	0.0694	0.421	2
06135	Lead	7439-92-1	14.8	0.0109	0.210	2
06138	Molybdenum	7439-98-7	0.664	0.0526	0.105	2
06139	Nickel	7440-02-0	20.6	0.105	0.421	2
06141	Selenium	7782-49-2	0.214 J	0.0421	0.421	2
06142	Silver	7440-22-4	3.18	0.0126	0.105	2
06145	Thallium	7440-28-0	0.348	0.0316	0.105	2
06148	Vanadium	7440-62-2	48.8	0.0231	0.105	2
06149	Zinc	7440-66-6	112	0.589	3.16	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0905 J	0.0030	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	31.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	362	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

Sample Description: SL-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL120 SDG#: DOE01-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.81	0.0100	0.0100	1
Wet Chemistry						
		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	5.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL120 SDG#: DOE01-15

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	0.118	U	0.118	1
11031	12378-PeCDD	40321-76-4	1.01	JQ	0.209	1
11031	123478-HxCDD	39227-28-6	1.92	JQ	0.477	1
11031	123678-HxCDD	57653-85-7	12.4		0.514	1
11031	123789-HxCDD	19408-74-3	4.60	JQ	0.448	1
11031	1234678-HpCDD	35822-46-9	316		0.483	1
11031	OCDD	3268-87-9	3,810	B	0.775	1
11031	2378-TCDF	51207-31-9	0.928	J	0.650	1
11031	12378-PeCDF	57117-41-6	0.221	U	0.221	1
11031	23478-PeCDF	57117-31-4	0.904	JBQ	0.219	1
11031	123478-HxCDF	70648-26-9	1.81	JBQ	0.429	1
11031	123678-HxCDF	57117-44-9	1.46	J	0.413	1
11031	123789-HxCDF	72918-21-9	0.489	JQ	0.362	1
11031	234678-HxCDF	60851-34-5	2.39	JBQ	0.376	1
11031	1234678-HpCDF	67562-39-4	38.1	B	0.371	1
11031	1234789-HpCDF	55673-89-7	6.80		0.420	1
11031	OCDF	39001-02-0	96.7	B	0.194	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	94	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	102	23 - 140
13C12-OCDD	119	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	95	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	99	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	98	26 - 138
13C12-OCDF	105	17 - 157
13C12-1278-TCDD (CRS)	97	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-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

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SL120 SDG#: DOE01-15

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-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

CDM Federal Programs Corp.

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Reported: 01/20/2011 13:28

Chantilly VA 20151

SL120 SDG#: DOE01-15

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/03/2010 01:57	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/10/2010 23:41	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 12:29	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 22:25	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 04:42	Richard A Shober	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10299001	10/28/2010 03:19	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10299001	10/27/2010 13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 08:24	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 20:06	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 11:07	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2

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

Sample Description: SL-120-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-120-SA5C-SS-0.0-0.5

LLI Sample # SW 6118550
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 13:44

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL120 SDG#: DOE01-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 11:07	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 11:07	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 11:07	Choon Y Tian	2
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:43	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201B	10/27/2010 15:29	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202B	10/27/2010 23:47	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/26/2010 01:10	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201B	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202B	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101B	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401B	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1



Analysis Report

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Page 1 of 9

REVISED

Sample Description: SL-121-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-121-SA5C-SS-0.0-0.5

LLI Sample # SW 6118551
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL121 SDG#: DOE01-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	580	1
04688	Benzidine	92-87-5	1,400	U 1,400	3,900	1
04688	Benzo(g,h,i)perylene	191-24-2	31	J 19	190	1
04688	Benzoic acid	65-85-0	190	U 190	580	1
04688	Benzyl alcohol	100-51-6	190	U 190	580	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	19	U 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	190	1
04688	Chrysene	218-01-9	20	J 19	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	190	1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580	1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	75	J 19	390	1
04688	Fluoranthene	206-44-0	33	J 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	39	U 39	190	1
04688	4-Methylphenol	106-44-5	39	U 39	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	39	U 39	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1

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

Sample Description: SL-121-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-121-SA5C-SS-0.0-0.5

LLI Sample # SW 6118551
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL121 SDG#: DOE01-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	4-Nitrophenol	100-02-7	190	U 190	580	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	35	J 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	580	1
04688	Phenanthrene	85-01-8	26	J 19	190	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	Pyrene	129-00-0	36	J 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	190	1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	190	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 22 ug/kg. The blank value was not subtracted from the analytical result.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	3.9	U 3.9	9.7	5
10138	Acenaphthylene	208-96-8	1.9	U 1.9	9.7	5
10138	Anthracene	120-12-7	1.9	U 1.9	9.7	5
10138	Benzo(a)anthracene	56-55-3	5.5	J 3.9	9.7	5
10138	Benzo(a)pyrene	50-32-8	11	3.9	9.7	5
10138	Benzo(b)fluoranthene	205-99-2	29	3.9	9.7	5
10138	Benzo(k)fluoranthene	207-08-9	4.5	J 3.9	9.7	5
10138	Dibenz(a,h)anthracene	53-70-3	3.9	U 3.9	9.7	5
10138	Fluorene	86-73-7	3.9	U 3.9	9.7	5
10138	Indeno(1,2,3-cd)pyrene	193-39-5	3.9	U 3.9	9.7	5
10138	1-Methylnaphthalene	90-12-0	3.9	U 3.9	9.7	5
10138	2-Methylnaphthalene	91-57-6	3.9	U 3.9	9.7	5
10138	Naphthalene	91-20-3	5.8	J 3.9	9.7	5
10138	N-Nitrosodimethylamine	62-75-9	3.9	U 3.9	9.7	5

Reporting limits were raised due to interference from the sample matrix.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U	1.4	4.2	1
10401	Dalapon	75-99-0	5.1	U	5.1	10	1
10401	2,4-DB	94-82-6	5.6	U	5.6	5.6	1
10401	Dicamba	1918-00-9	0.46	U	0.46	1.4	1
10401	Dinoseb	88-85-7	0.93	U	0.93	2.8	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.93	U	0.93	2.0	1
10401	MCPA	94-74-6	580		88	290	1
10401	MCPP (Mecoprop)	93-65-2	87	U	87	290	1
10401	2,4,5-T	93-76-5	0.095	U	0.095	0.20	1
10401	2,4,5-TP	93-72-1	0.087	U	0.087	0.20	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation

Sample Description: SL-121-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-121-SA5C-SS-0.0-0.5

LLI Sample # SW 6118551
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL121 SDG#: DOE01-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.077 U	0.077	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.070 U	0.070	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19	1
01363	Chlordane	57-74-9	2.1 U	2.1	3.9	1
01363	p,p-DDD	72-54-8	0.077 U	0.077	0.39	1
01363	p,p-DDE	72-55-9	0.12 U	0.12	0.39	1
01363	p,p-DDT	50-29-3	1.3 U	1.3	1.3	1
01363	Delta BHC	319-86-8	0.042 U	0.042	0.19	1
01363	Dieldrin	60-57-1	0.077 U	0.077	0.39	1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19	1
01363	Endosulfan II	33213-65-9	0.12 U	0.12	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.077 U	0.077	0.39	1
01363	Endrin	72-20-8	0.10 U	0.10	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.29 U	0.29	0.39	1
01363	Endrin Ketone	53494-70-5	0.077 U	0.077	0.39	1
01363	Heptachlor	76-44-8	0.070 U	0.070	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.067 U	0.067	0.19	1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9	1
01363	Mirex	2385-85-5	0.077 U	0.077	0.39	1
01363	Toxaphene	8001-35-2	2.6 U	2.6	7.7	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	5.8 U	5.8	19	5
10225	Aroclor 5442	12642-23-8	5.8 U	5.8	19	5
10225	Aroclor 5460	11126-42-4	9.8 J	5.8	19	5
10225	PCB-1016	12674-11-2	1.9 U	1.9	9.9	5
10225	PCB-1221	11104-28-2	2.9 U	2.9	9.9	5
10225	PCB-1232	11141-16-5	3.0 U	3.0	9.9	5
10225	PCB-1242	53469-21-9	2.9 U	2.9	9.9	5
10225	PCB-1248	12672-29-6	1.9 U	1.9	9.9	5
10225	PCB-1254	11097-69-1	54	1.9	9.9	5
10225	PCB-1260	11096-82-5	50	1.9	9.9	5
10225	PCB-1262	37324-23-5	1.9 U	1.9	9.9	5
10225	PCB-1268	11100-14-4	1.9 U	1.9	9.9	5

Sample Description: SL-121-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-121-SA5C-SS-0.0-0.5

LLI Sample # SW 6118551
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:30

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

Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL121 SDG#: DOE01-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,400	5.78	23.0	1
07914	Boron	7440-42-8	9.10	1.02	5.74	1
01650	Calcium	7440-70-2	13,000	7.04	23.0	1
01654	Iron	7439-89-6	21,800	5.41	23.0	1
01656	Lithium	7439-93-2	17.2	0.25	2.3	1
01657	Magnesium	7439-95-4	4,340	2.92	11.5	1
06958	Manganese	7439-96-5	303	0.0896	0.574	1
10145	Phosphorus	7723-14-0	363	0.643	11.5	1
01662	Potassium	7440-09-7	3,180	20.7	57.4	1
01667	Sodium	7440-23-5	90.5 J	42.8	115	1
07968	Strontium	7440-24-6	35.4	0.0712	0.574	1
06969	Tin	7440-31-5	2.46 J	1.15	11.5	1
06970	Titanium	7440-32-6	1,070	2.18	5.74	5
10146	Zirconium	7440-67-7	5.39 J	0.965	5.74	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.591	0.0682	0.227	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	9.49	0.0682	0.455	2
06126	Barium	7440-39-3	144	0.123	0.455	2
06127	Beryllium	7440-41-7	0.821	0.0182	0.114	2
06128	Cadmium	7440-43-9	1.62	0.0409	0.114	2
06131	Chromium	7440-47-3	37.4	0.136	0.455	2
06132	Cobalt	7440-48-4	13.1	0.0227	0.114	2
06133	Copper	7440-50-8	23.3	0.0751	0.455	2
06135	Lead	7439-92-1	37.0	0.0118	0.227	2
06138	Molybdenum	7439-98-7	0.977	0.0569	0.114	2
06139	Nickel	7440-02-0	23.4	0.114	0.455	2
06141	Selenium	7782-49-2	0.354 J	0.0455	0.455	2
06142	Silver	7440-22-4	4.84	0.0136	0.114	2
06145	Thallium	7440-28-0	0.352	0.0341	0.114	2
06148	Vanadium	7440-62-2	74.2	0.0250	0.114	2
06149	Zinc	7440-66-6	233	1.59	8.53	5
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0805 J	0.0033	0.114	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.6	0.93	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	27.1 J	10.4	34.8	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.41 J	0.23	1.2	1

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

Sample Description: SL-121-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-121-SA5C-SS-0.0-0.5

LLI Sample # SW 6118551
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2010 08:50

Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL121 SDG#: DOE01-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	372	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.18	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	13.8	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: SL-121-SA5C-SS-0.0-0.5 Soil
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SL-121-SA5C-SS-0.0-0.5

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Submitted: 10/21/2010 08:50

Reported: 01/20/2011 13:28

SL121 SDG#: DOE01-16*

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	0.0965	JQ	0.0306	1.16	1
11031	12378-PeCDD	40321-76-4	0.101	U	0.101	5.80	1
11031	123478-HxCDD	39227-28-6	1.32	J	0.0776	5.80	1
11031	123678-HxCDD	57653-85-7	4.20	J	0.0788	5.80	1
11031	123789-HxCDD	19408-74-3	2.57	J	0.0758	5.80	1
11031	1234678-HpCDD	35822-46-9	101	B	0.114	5.80	1
11031	OCDD	3268-87-9	1,280	B	0.107	11.6	1
11031	2378-TCDF	51207-31-9	0.604	JQ	0.253	1.16	1
11031	12378-PeCDF	57117-41-6	5.41	J	0.0905	5.80	1
11031	23478-PeCDF	57117-31-4	1.44	J	0.0845	5.80	1
11031	123478-HxCDF	70648-26-9	2.40	J	0.0669	5.80	1
11031	123678-HxCDF	57117-44-9	1.10	J	0.0669	5.80	1
11031	123789-HxCDF	72918-21-9	0.707	JQ	0.0739	5.80	1
11031	234678-HxCDF	60851-34-5	1.02	JB	0.0652	5.80	1
11031	1234678-HpCDF	67562-39-4	14.2	B	0.0548	5.80	1
11031	1234789-HpCDF	55673-89-7	1.01	J	0.0684	5.80	1
11031	OCDF	39001-02-0	32.1		0.0390	11.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	59	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-121-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-121-SA5C-SS-0.0-0.5

LLI Sample # SW 6118551
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:30

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Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL121 SDG#: DOE01-16*

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-121-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-121-SA5C-SS-0.0-0.5

LLI Sample # SW 6118551
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Chantilly VA 20151

SL121 SDG#: DOE01-16*

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
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10300SLG026	11/03/2010 02:23	Barton C Conner	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10298SLG026	11/09/2010 04:09	Gregory J Drahovsky	5
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLG026	10/26/2010 02:00	Roman Kuropatkin	1
00381	BNA Soil Sonication	SW-846 3550B	1	10300SLG026	10/27/2010 23:00	Patricia L Foreman	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	102990013A	10/28/2010 12:57	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000004A	11/06/2010 22:39	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	102990002A	11/04/2010 05:01	Richard A Shober	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000004A	10/27/2010 00:00	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990002A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	102990013A	10/27/2010 01:30	Roman Kuropatkin	1
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10306001	11/14/2010 19:30	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10306001	11/02/2010 14:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
07914	Boron	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
01650	Calcium	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
01654	Iron	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
01656	Lithium	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
06958	Manganese	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
01662	Potassium	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
01667	Sodium	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
07968	Strontium	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
06969	Tin	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
06970	Titanium	SW-846 6010B	1	102985708003	11/05/2010 07:24	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	102985708003	11/02/2010 18:33	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026002D	11/04/2010 11:10	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2

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

Sample Description: SL-121-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-121-SA5C-SS-0.0-0.5

LLI Sample # SW 6118551
LLI Group # 1217424
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2010 10:30

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Suite 210

Reported: 01/20/2011 13:28

Chantilly VA 20151

SL121 SDG#: DOE01-16*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026002C	11/04/2010 11:10	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026002B	11/04/2010 11:10	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026002A	11/04/2010 11:10	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026002A	11/04/2010 17:03	Choon Y Tian	5
00159	Mercury	SW-846 7471A	2	102985711002	10/26/2010 09:45	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102985708003	10/25/2010 20:59	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026002	10/27/2010 20:09	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102985711002	10/25/2010 23:15	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10299299201B	10/27/2010 15:44	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10299299202B	10/28/2010 00:11	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10297243201A	10/26/2010 01:18	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10299299201B	10/26/2010 12:45	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10299299202B	10/26/2010 13:15	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10295182101B	10/22/2010 09:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10295039401B	10/22/2010 09:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10297243201A	10/24/2010 05:50	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162401A	11/04/2010 10:24	William C Schwebel	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

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: 10298SLG026 Sample number(s): 6118536-6118551									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	85		59-102		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	83		67-100		
Anthracene	0.33 U	0.33	1.7	ug/kg	89		53-105		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	90		74-112		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	79		70-109		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	81		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	80		44-138		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	83		66-137		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	111		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	103		84-132		
Chrysene	0.33 U	0.33	1.7	ug/kg	99		79-111		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	83		62-142		
Diethylphthalate	6.0 U	6.0	18	ug/kg	96		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	97		70-130		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	103		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	94		78-114		
Fluorene	0.67 U	0.67	1.7	ug/kg	89		75-110		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	84		62-141		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	94		72-114		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	86		62-115		
Naphthalene	0.67 U	0.67	1.7	ug/kg	88		67-105		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	106		39-148		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	92		57-133		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	92		76-109		
Pyrene	0.67 U	0.67	1.7	ug/kg	85		56-121		
Batch number: 10300SLG026 Sample number(s): 6118536-6118551									
Aniline	170 U	170.	500	ug/kg	70		10-107		
Benzidine	1,200 U	1,200.	3,300	ug/kg	43		15-121		
Benzo(a)anthracene	17 U	17.	170	ug/kg	96		73-112		
Benzo(a)pyrene	17 U	17.	170	ug/kg	99		69-122		
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	97		61-127		
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	93		65-122		
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	103		67-125		
Benzoic acid	170 U	170.	500	ug/kg	88		10-154		
Benzyl alcohol	170 U	170.	500	ug/kg	83		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	96		79-117		
Butylbenzylphthalate	17 U	17.	170	ug/kg	100		75-115		
Di-n-butylphthalate	17 U	17.	170	ug/kg	94		79-112		
Carbazole	17 U	17.	170	ug/kg	91		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	98		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	50		10-110		

*- Outside of specification

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	83		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	80		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	77		68-131		
2-Chloronaphthalene	17 U	17.	170	ug/kg	83		67-127		
2-Chlorophenol	17 U	17.	170	ug/kg	89		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	91		79-110		
Chrysene	17 U	17.	170	ug/kg	93		76-113		
Dibenz(a,h)anthracene	17 U	17.	170	ug/kg	93		70-128		
Dibenzofuran	17 U	17.	170	ug/kg	90		79-108		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	80		79-102		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	78		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	81		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	67		38-105		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	96		75-111		
Diethylphthalate	17 U	17.	170	ug/kg	94		76-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	93		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	89		70-130		
Dimethylphthalate	17 U	17.	170	ug/kg	93		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	84		53-110		
2,4-Dinitrophenol	670 U	670.	2,000	ug/kg	83		37-120		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	96		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	96		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	87		77-111		
bis(2-Ethylhexyl)phthalate	22 J	17.	330	ug/kg	101		75-117		
Fluoranthene	17 U	17.	170	ug/kg	90		78-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	94		78-116		
Hexachlorobutadiene	67 U	67.	170	ug/kg	90		70-112		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	81		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	77		68-105		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	94		64-119		
Isophorone	17 U	17.	170	ug/kg	85		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	90		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	82		76-105		
2-Methylphenol	33 U	33.	170	ug/kg	90		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	90		66-117		
Naphthalene	17 U	17.	170	ug/kg	84		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	92		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	89		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	68		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	84		71-104		
2-Nitrophenol	17 U	17.	170	ug/kg	89		81-114		
4-Nitrophenol	170 U	170.	500	ug/kg	89		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	77		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	91		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	114		68-130		
Pentachlorophenol	170 U	170.	500	ug/kg	81		35-106		
Phenanthrene	17 U	17.	170	ug/kg	90		77-113		
Phenol	17 U	17.	170	ug/kg	84		58-112		
Pyrene	17 U	17.	170	ug/kg	99		75-115		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	85		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	95		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	94		78-111		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 102990013A	Sample number(s): 6118536-6118542, 6118545-6118551								
2,4-D	1.2 U	1.2	3.6	ug/kg	102		40-140		
Dalapon	4.4 U	4.4	9.0	ug/kg	42		24-89		
2,4-DB	0.62 U	0.62	1.7	ug/kg	87		34-138		
Dicamba	0.40 U	0.40	1.2	ug/kg	87		20-164		
Dinoseb	0.80 U	0.80	2.4	ug/kg	8*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	121		60-141		
MCPA	76 U	76.	250	ug/kg	100		34-113		
MCPP (Mecoprop)	77 J	75.	250	ug/kg	107		29-154		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	87		33-145		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	94		48-138		
Batch number: 103030016A	Sample number(s): 6118543-6118544								
2,4-D	1.2 U	1.2	3.6	ug/kg	105		40-140		
Dalapon	4.4 U	4.4	9.0	ug/kg	61		24-89		
2,4-DB	0.62 U	0.62	1.7	ug/kg	104		34-138		
Dicamba	0.40 U	0.40	1.2	ug/kg	87		20-164		
Dinoseb	0.80 U	0.80	2.4	ug/kg	8*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	146*		60-141		
MCPA	76 U	76.	250	ug/kg	82		34-113		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	80		29-154		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	89		33-145		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	87		48-138		
Batch number: 103060030A	Sample number(s): 6118541								
6a Perchlorate EPA 6850	2.1 U	2.1	5.0	ug/kg	95		85-115		
Batch number: 102990002A	Sample number(s): 6118536-6118551								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	91	91	75-125	0	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	98		72-120		
PCB-1221	0.50 U	0.50	1.7	ug/kg					
PCB-1232	0.52 U	0.52	1.7	ug/kg					
PCB-1242	0.50 U	0.50	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.33 U	0.33	1.7	ug/kg	118		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 103000004A	Sample number(s): 6118536-6118551								
Aldrin	0.066 U	0.066	0.17	ug/kg	77		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	91		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	81		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	91		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	143*		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	106		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	140*		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	78		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	121		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	109		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	97		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	110		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	127		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	90		55-132		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	100		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	109		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	87		65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg	148*		59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					

Batch number: 102985708003	Sample number(s): 6118536-6118551								
Aluminum	5.03 U	5.03	20.0	mg/kg	99		61-110		
Boron	0.890 U	0.890	5.00	mg/kg	94		78-110		
Calcium	6.13 U	6.13	20.0	mg/kg	102		88-110		
Iron	4.71 U	4.71	20.0	mg/kg	98		61-110		
Lithium	0.22 U	0.22	2.0	mg/kg	103		80-120		
Magnesium	2.54 U	2.54	10.0	mg/kg	101		82-110		
Manganese	0.0780 U	0.0780	0.500	mg/kg	105		81-119		
Phosphorus	1.40 J	0.560	10.0	mg/kg	103		80-120		
Potassium	18.0 U	18.0	50.0	mg/kg	99		78-110		
Sodium	37.3 U	37.3	100	mg/kg	100		87-110		
Strontium	0.0620 U	0.0620	0.500	mg/kg	109		79-121		
Tin	1.33 J	1.00	10.0	mg/kg	105		90-114		
Titanium	0.380 U	0.380	1.00	mg/kg	90		85-115		
Zirconium	0.840 U	0.840	5.00	mg/kg	102		80-120		

Batch number: 102985711002	Sample number(s): 6118536-6118551								
Mercury	0.0027 U	0.0027	0.0946	mg/kg	99		88-123		

Batch number: 103001026002A	Sample number(s): 6118536-6118551								
Antimony	0.0600 U	0.0600	0.200	mg/kg	123		11-208		
Arsenic	0.0600 U	0.0600	0.400	mg/kg	109		80-120		
Beryllium	0.0160 U	0.0160	0.100	mg/kg	103		82-118		
Cadmium	0.0360 U	0.0360	0.100	mg/kg	111		82-118		
Chromium	0.120 U	0.120	0.400	mg/kg	118		80-120		
Cobalt	0.0200 U	0.0200	0.100	mg/kg	106		82-118		
Copper	0.0660 U	0.0660	0.400	mg/kg	109		80-120		
Lead	0.0104 U	0.0104	0.200	mg/kg	107		80-120		
Nickel	0.100 U	0.100	0.400	mg/kg	115		80-120		
Silver	0.0120 U	0.0120	0.100	mg/kg	111		66-134		
Thallium	0.0300 U	0.0300	0.100	mg/kg	112		81-119		
Vanadium	0.0220 U	0.0220	0.100	mg/kg	104		90-110		
Zinc	0.560 U	0.560	3.00	mg/kg	115		78-122		

Batch number: 103001026002B	Sample number(s): 6118536-6118551								
Selenium	0.0400 U	0.0400	0.400	mg/kg	110		79-122		

Batch number: 103001026002C	Sample number(s): 6118536-6118551								
Molybdenum	0.0500 U	0.0500	0.100	mg/kg	120		78-122		

Batch number: 103001026002D	Sample number(s): 6118536-6118551								
Barium	0.108 U	0.108	0.400	mg/kg	119		79-121		

Batch number: 10297243201A	Sample number(s): 6118536-6118551								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	87		80-120		

Batch number: 10299299201A	Sample number(s): 6118536-6118545								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	104		90-110		

Batch number: 10299299201B	Sample number(s): 6118546-6118551								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	104		90-110		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 10299299202A 7a Perchlorate EPA 314.0	Sample number(s): 6118536-6118545 9.0 U 9.0		30.0	ug/kg	102		85-115		
Batch number: 10299299202B 7a Perchlorate EPA 314.0	Sample number(s): 6118546-6118551 9.0 U 9.0		30.0	ug/kg	102		85-115		
Batch number: 10295039401A 22a pH by 9045C	Sample number(s): 6118536-6118544				99		95-105		
Batch number: 10295039401B 22a pH by 9045C	Sample number(s): 6118545-6118551				99		95-105		
Batch number: 10295182101A Oxidation Reduction Potential	Sample number(s): 6118536-6118544				100		98-102		
Batch number: 10295182101B Oxidation Reduction Potential	Sample number(s): 6118545-6118551				100		98-102		
Batch number: 10308162401A 28a Moisture Content by 160.3	Sample number(s): 6118536-6118551				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>OPR D %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 10295002	Sample number(s): 6118536-6118545								
2378-TCDD	0.106 U	0.106	1.00	ng/kg	102		67-158		
12378-PeCDD	0.107 U	0.107	5.00	ng/kg	105		70-142		
123478-HxCDD	0.0589 U	0.0589	5.00	ng/kg	104		70-164		
123678-HxCDD	0.0620 J	0.0603	5.00	ng/kg	106		76-134		
123789-HxCDD	0.0593 U	0.0593	5.00	ng/kg	104		64-162		
1234678-HpCDD	0.218 J	0.0818	5.00	ng/kg	101		70-140		
OCDD	0.842 J	0.106	10.0	ng/kg	100		78-144		
2378-TCDF	0.108 U	0.108	1.00	ng/kg	104		75-158		
12378-PeCDF	0.0854 U	0.0854	5.00	ng/kg	107		80-134		
23478-PeCDF	0.168 J	0.0819	5.00	ng/kg	107		68-160		
123478-HxCDF	0.0768 J	0.0582	5.00	ng/kg	114		72-134		
123678-HxCDF	0.0546 U	0.0546	5.00	ng/kg	115		84-130		
123789-HxCDF	0.122 J	0.0756	5.00	ng/kg	105		78-130		
234678-HxCDF	0.269 J	0.0584	5.00	ng/kg	115		70-156		
1234678-HpCDF	0.642 J	0.0493	5.00	ng/kg	104		82-122		
1234789-HpCDF	0.107 J	0.0717	5.00	ng/kg	103		78-138		
OCDF	0.453 J	0.166	10.0	ng/kg	103		63-170		
Batch number: 10299001	Sample number(s): 6118546-6118548, 6118550								
2378-TCDD	0.0712 U	0.0712	1.00	ng/kg	107		67-158		
12378-PeCDD	0.0641 U	0.0641	5.00	ng/kg	111		70-142		
123478-HxCDD	0.0552 U	0.0552	5.00	ng/kg	106		70-164		
123678-HxCDD	0.0566 U	0.0566	5.00	ng/kg	108		76-134		
123789-HxCDD	0.0567 U	0.0567	5.00	ng/kg	111		64-162		
1234678-HpCDD	0.0610 U	0.0610	5.00	ng/kg	100		70-140		
OCDD	0.349 J	0.0745	10.0	ng/kg	102		78-144		
2378-TCDF	0.0732 U	0.0732	1.00	ng/kg	107		75-158		
12378-PeCDF	0.0561 U	0.0561	5.00	ng/kg	110		80-134		
23478-PeCDF	0.0709 J	0.0497	5.00	ng/kg	107		68-160		
123478-HxCDF	0.0534 J	0.0397	5.00	ng/kg	114		72-134		
123678-HxCDF	0.0397 U	0.0397	5.00	ng/kg	114		84-130		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

<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>
123789-HxCDF	0.0423 U	0.0423	5.00	ng/kg	109		78-130		
234678-HxCDF	0.0838 J	0.0383	5.00	ng/kg	109		70-156		
1234678-HpCDF	0.244 J	0.0415	5.00	ng/kg	108		82-122		
1234789-HpCDF	0.0549 U	0.0549	5.00	ng/kg	106		78-138		
OCDF	0.153 J	0.0805	10.0	ng/kg	105		63-170		

Batch number: 10306001

Sample number(s): 6118549, 6118551

2378-TCDD	0.185 U	0.185	1.00	ng/kg	97		67-158		
12378-PeCDD	0.104 U	0.104	5.00	ng/kg	102		70-142		
123478-HxCDD	0.0600 U	0.0600	5.00	ng/kg	92		70-164		
123678-HxCDD	0.0644 U	0.0644	5.00	ng/kg	95		76-134		
123789-HxCDD	0.0612 U	0.0612	5.00	ng/kg	94		64-162		
1234678-HpCDD	0.0863 J	0.0714	5.00	ng/kg	89		70-140		
OCDD	0.121 J	0.0667	10.0	ng/kg	91		78-144		
2378-TCDF	0.187 U	0.187	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0893 U	0.0893	5.00	ng/kg	91		80-134		
23478-PeCDF	0.0794 U	0.0794	5.00	ng/kg	94		68-160		
123478-HxCDF	0.0545 U	0.0545	5.00	ng/kg	99		72-134		
123678-HxCDF	0.0506 U	0.0506	5.00	ng/kg	96		84-130		
123789-HxCDF	0.0717 U	0.0717	5.00	ng/kg	95		78-130		
234678-HxCDF	0.0595 J	0.0514	5.00	ng/kg	98		70-156		
1234678-HpCDF	0.0652 J	0.0385	5.00	ng/kg	94		82-122		
1234789-HpCDF	0.0698 U	0.0698	5.00	ng/kg	91		78-138		
OCDF	0.148 U	0.148	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>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 10298SLG026	Sample number(s): 6118536-6118551 UNSPK: 6118536							
Acenaphthene	104	100	63-105	5	30			
Acenaphthylene	108	102	55-126	6	30			
Anthracene	102	78	46-136	26	30			
Benzo(a)anthracene	106	106	39-144	0	30			
Benzo(a)pyrene	107	103	34-156	3	30			
Benzo(b)fluoranthene	116	113	43-155	3	30			
Benzo(g,h,i)perylene	60	52	33-141	13	30			
Benzo(k)fluoranthene	106	110	42-144	4	30			
Butylbenzylphthalate	127	127	73-140	0	30			
Di-n-butylphthalate	128	99	78-160	21	30			
Chrysene	102	98	29-156	4	30			
Dibenz(a,h)anthracene	65	58	41-130	12	30			
Diethylphthalate	117	115	87-131	2	30			
Dimethylphthalate	118	111	74-118	6	30			
Bis(2-Ethylhexyl)phthalate	109	117	39-167	5	30			
Fluoranthene	132	108	26-166	18	30			
Fluorene	109	104	45-121	5	30			

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

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
Indeno(1,2,3-cd)pyrene	72	64	21-143	11	30				
1-Methylnaphthalene	93	99	72-123	7	30				
2-Methylnaphthalene	90	99	28-121	9	30				
Naphthalene	111*	116*	61-102	4	30				
N-Nitrosodimethylamine	111	107	48-113	4	30				
Di-n-octylphthalate	142	149	40-192	5	30				
Phenanthrene	120	134	12-165	10	30				
Pyrene	102	107	15-153	4	30				

Batch number: 10300SLG026

Sample number(s): 6118536-6118551 UNSPK: 6118540

Aniline	69	70	14-114	1	30
Benizidine	24*	20*	35-141	20	30
Benzo(a)anthracene	95	92	65-122	3	30
Benzo(a)pyrene	99	95	57-126	4	30
Benzo(b)fluoranthene	94	89	59-125	5	30
Benzo(g,h,i)perylene	102	97	59-127	5	30
Benzo(k)fluoranthene	104	99	56-132	5	30
Benzoic acid	58	54	10-173	8	30
Benzyl alcohol	87	87	55-123	0	30
4-Bromophenyl-phenylether	99	97	67-129	2	30
Butylbenzylphthalate	105	104	73-134	1	30
Di-n-butylphthalate	95	94	67-123	1	30
Carbazole	89	88	64-120	1	30
4-Chloro-3-methylphenol	100	101	53-130	1	30
4-Chloroaniline	51	53	23-95	5	30
bis(2-Chloroethoxy)methane	84	85	54-117	0	30
bis(2-Chloroethyl)ether	84	85	60-116	0	30
bis(2-Chloroisopropyl)ether	81	80	55-142	2	30
2-Chloronaphthalene	86	83	50-141	4	30
2-Chlorophenol	95	95	73-121	1	30
4-Chlorophenyl-phenylether	93	90	64-119	3	30
Chrysene	94	92	62-128	2	30
Dibenz(a,h)anthracene	105	98	65-125	7	30
Dibenzofuran	93	90	71-112	2	30
1,2-Dichlorobenzene	85	85	66-108	0	30
1,3-Dichlorobenzene	84	83	63-109	0	30
1,4-Dichlorobenzene	86	86	53-113	1	30
3,3'-Dichlorobenzidine	79	76	25-123	3	30
2,4-Dichlorophenol	101	100	78-117	1	30
Diethylphthalate	93	91	66-118	3	30
2,4-Dimethylphenol	97	97	56-130	0	30
3,5-Dimethylphenol	93	93	70-130	1	30
Dimethylphthalate	93	89	64-118	4	30
4,6-Dinitro-2-methylphenol	59	57	10-148	3	30
2,4-Dinitrophenol	42	40	20-143	5	30
2,4-Dinitrotoluene	95	91	57-114	4	30
2,6-Dinitrotoluene	96	94	69-123	3	30
1,2-Diphenylhydrazine	90	90	71-129	1	30
bis(2-Ethylhexyl)phthalate	105	103	63-122	2	30
Fluoranthene	85	82	59-122	4	30
Hexachlorobenzene	97	95	61-111	2	30
Hexachlorobutadiene	93	92	62-120	1	30
Hexachlorocyclopentadiene	70	63	10-153	9	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

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
Hexachloroethane	81	79	57-109	2	30				
Indeno(1,2,3-cd)pyrene	103	96	61-126	6	30				
Isophorone	86	86	51-118	0	30				
1-Methylnaphthalene	96	96	73-112	0	30				
2-Methylnaphthalene	88	87	76-114	1	30				
2-Methylphenol	94	95	47-142	1	30				
4-Methylphenol	97	96	55-126	1	30				
Naphthalene	89	89	72-116	0	30				
2-Nitroaniline	93	92	67-125	1	30				
3-Nitroaniline	89	88	59-122	2	30				
4-Nitroaniline	72	69	52-112	3	30				
Nitrobenzene	86	87	51-114	1	30				
2-Nitrophenol	94	96	74-115	2	30				
4-Nitrophenol	92	85	39-133	8	30				
N-Nitroso-di-n-propylamine	81	81	60-116	1	30				
N-Nitrosodiphenylamine	94	93	86-145	1	30				
Di-n-octylphthalate	115	110	56-126	4	30				
Pentachlorophenol	65	55	17-149	18	30				
Phenanthrene	91	90	65-125	1	30				
Phenol	89	89	58-126	0	30				
Pyrene	106	103	51-151	2	30				
1,2,4-Trichlorobenzene	90	90	72-115	0	30				
2,4,5-Trichlorophenol	97	96	34-139	1	30				
2,4,6-Trichlorophenol	99	97	49-140	2	30				

Batch number: 102990013A	Sample number(s): 6118536-6118542, 6118545-6118551 UNSPK: 6118537								
2,4-D	85	86	28-161	1	35				
Dalapon	48	49	12-86	3	50				
2,4-DB	47	65	20-170	16	50				
Dicamba	93	105	33-120	12	50				
Dinoseb	13	13	1-44	4	35				
2,4-DP (Dichlorprop)	106	105	55-141	1	50				
MCPA	100	102	31-184	2	50				
MCPP (Mecoprop)	162	188*	16-174	15	50				
2,4,5-T	76	77	25-132	2	35				
2,4,5-TP	84	82	10-183	3	35				

Batch number: 103030016A	Sample number(s): 6118543-6118544 UNSPK: P119986								
2,4-D	84	112	28-161	28	35				
Dalapon	90*	100*	12-86	10	50				
2,4-DB	54	76	20-170	24	50				
Dicamba	93	152*	33-120	48	50				
Dinoseb	9	12	1-44	32	35				
2,4-DP (Dichlorprop)	72	101	55-141	34	50				
MCPA	64	67	31-184	2	50				
MCPP (Mecoprop)	62	92	16-174	40	50				
2,4,5-T	45	24*	25-132	32	35				
2,4,5-TP	71	95	10-183	29	35				

Batch number: 103060030A	Sample number(s): 6118541 UNSPK: 6118541								
6a Perchlorate EPA 6850	104	100	80-120	4	20				

Batch number: 102990002A	Sample number(s): 6118536-6118551 UNSPK: 6118536								

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
PCB-1016	96	95	29-146	2	50				
PCB-1260	112	111	39-149	1	50				
Batch number: 103000004A Sample number(s): 6118536-6118551 UNSPK: 6118539									
Aldrin	0*	42	16-126	200*	50				
Alpha BHC	25	45	10-129	59*	50				
Beta BHC	34	53	14-147	43	50				
Gamma BHC - Lindane	27	48	10-140	57*	50				
p,p-DDD	27	67	16-163	86*	50				
p,p-DDE	34	76	18-161	76*	50				
p,p-DDT	34	89	10-176	90*	50				
Delta BHC	23	50	23-140	75*	50				
Dieldrin	27	52	19-154	62*	50				
Endosulfan I	22	42	16-137	63*	50				
Endosulfan II	25*	51	28-154	67*	50				
Endosulfan Sulfate	49	62	21-160	23	50				
Endrin	32	50	11-149	44	50				
Endrin Aldehyde	26	35	10-148	32	35				
Endrin Ketone	39	53	22-165	32	50				
Heptachlor	29	55	13-126	62*	50				
Heptachlor Epoxide	16	39	13-157	84*	50				
Methoxychlor	43	69	32-147	47	50				
Batch number: 102985708003 Sample number(s): 6118536-6118551 UNSPK: 6118551 BKG: 6118551									
Aluminum	2450	2863	75-125	4	20	15,800	17,500	10	20
	(2)	(2)							
Boron	94	94	84-115	1	20	7.85	8.15	4 (1)	20
Calcium	-19 (2)	364 (2)	75-125	13	20	11,200	9,280	19	20
Iron	683 (2)	806 (2)	75-125	1	20	18,800	20,800	10	20
Lithium	104	104	82-114	0	20	14.9	16.5	10	20
Magnesium	306 (2)	405 (2)	75-125	4	20	3,750	3,990	6	20
Manganese	113 (2)	181 (2)	75-125	10	20	261	445	52*	20
Phosphorus	115	160*	75-125	10	20	313	353	12	20
Potassium	163*	178*	75-125	3	20	2,740	2,940	7	20
Sodium	103	102	75-125	1	20	78.0	J 81.4	J 4 (1)	20
Strontium	105	108	75-115	3	20	30.5	31.1	2	20
Tin	91	90	80-110	0	20	2.12	J 2.24	J 6 (1)	20
Titanium	435 (2)	547 (2)	75-125	8	20	919	1,010	9	20
Zirconium	97	96	75-125	0	20	4.65	J 5.90	24* (1)	20
Batch number: 102985711002 Sample number(s): 6118536-6118551 UNSPK: 6118551 BKG: 6118551									
Mercury	120	118	65-135	1	20	0.0694 J	0.0772 J	11 (1)	20
Batch number: 103001026002A Sample number(s): 6118536-6118551 UNSPK: 6118536 BKG: 6118536									
Antimony	68*	42*	75-125	28*	20	0.444	0.303	38* (1)	20
Arsenic	203*	94	75-125	25*	20	5.69	4.33	27*	20
Beryllium	141*	95	75-125	23*	20	0.690	0.615	12	20
Cadmium	192*	126*	75-125	34*	20	0.347	0.291	18 (1)	20
Chromium	199*	86	75-125	28*	20	25.6	20.5	22*	20
Cobalt	140*	101	75-125	28*	20	7.46	7.14	4	20
Copper	156*	84	75-125	28*	20	13.3	10.7	21*	20
Lead	410 (2)	95 (2)	75-125	34*	20	20.0	17.0	16	20
Nickel	189*	98	75-125	31*	20	15.1	12.7	17	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

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
Silver	163*	127*	75-125	25*	20	0.0765 J	0.0658 J	15 (1)	20
Thallium	178*	101	75-125	33*	20	0.373	0.278	29* (1)	20
Vanadium	257 (2)	76 (2)	75-125	28*	20	47.8	38.7	21*	20
Zinc	268 (2)	54 (2)	75-125	28*	20	60.8	49.0	21*	20
Batch number: 103001026002B Selenium	Sample number(s): 6118536-6118551 UNSPK: 6118536 BKG: 6118536 155* 113 75-125 29* 20 0.249 J 0.172 J 36* (1) 20								
Batch number: 103001026002C Molybdenum	Sample number(s): 6118536-6118551 UNSPK: 6118536 BKG: 6118536 164* 120 75-125 29* 20 1.11 0.736 40* 20								
Batch number: 103001026002D Barium	Sample number(s): 6118536-6118551 UNSPK: 6118536 BKG: 6118536 25 (2) -12 (2) 75-125 3 20 137 113 19 20								
Batch number: 10297243201A 3a Cr VI by EPA 7199	Sample number(s): 6118536-6118551 UNSPK: 6118536 BKG: 6118536 92 75-125 0.51 J 0.20 U 200* (1) 20								
Batch number: 10299299201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6118536-6118545 UNSPK: 6118536 BKG: 6118536 80 80-120 0.96 J 0.94 J 3 (1) 20								
Batch number: 10299299201B 11a Anions by 300.0 - Fluoride	Sample number(s): 6118546-6118551 UNSPK: 6118546 BKG: 6118546 73* 80-120 1.8 1.2 41* (1) 20								
Batch number: 10299299202A 7a Perchlorate EPA 314.0	Sample number(s): 6118536-6118545 UNSPK: 6118536 BKG: 6118536 106 80-120 9.0 U 9.0 U 0 (1) 15								
Batch number: 10299299202B 7a Perchlorate EPA 314.0	Sample number(s): 6118546-6118551 UNSPK: 6118546 BKG: 6118546 104 80-120 9.0 U 9.0 U 0 (1) 15								
Batch number: 10295039401A 22a pH by 9045C	Sample number(s): 6118536-6118544 BKG: 6118536 6.54 6.55 0 1								
Batch number: 10295039401B 22a pH by 9045C	Sample number(s): 6118545-6118551 BKG: 6118545 7.99 7.99 0 1								
Batch number: 10295182101A Oxidation Reduction Potential	Sample number(s): 6118536-6118544 BKG: 6118536 303 303 0 6								
Batch number: 10295182101B Oxidation Reduction Potential	Sample number(s): 6118545-6118551 BKG: 6118545 340 340 0 6								
Batch number: 10308162401A 28a Moisture Content by 160.3	Sample number(s): 6118536-6118551 BKG: 6118539 12.3 12.2 0 20								

Surrogate Quality Control

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

Analysis Name: 4a Select SVOC EPA 8270SIM

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

Surrogate Quality Control

Batch number: 10298SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6118536	115	95	81
6118537	119	95	91
6118538	106	93	77
6118539	114	97	94
6118540	115	80	85
6118541	98	92	94
6118542	119	91	99
6118543	108	103	95
6118544	115	97	100
6118545	87	96	81
6118546	113	93	80
6118547	111	105	89
6118548	120	96	68
6118549	114	99	79
6118550	105	95	98
6118551	85	96	97
Blank	90	88	85
LCS	97	86	93
MS	113	96	98
MSD	120	94	99

Limits: 40-130 45-130 45-135

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 10300SLG026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6118536	88	87	84	80	81	87
6118537	87	90	75	82	87	90
6118538	84	85	74	82	89	88
6118539	84	83	76	77	81	89
6118540	88	88	85	81	84	91
6118541	86	86	75	80	84	88
6118542	86	86	76	80	86	89
6118543	81	81	72	73	77	81
6118544	83	84	75	79	82	88
6118545	80	79	75	74	81	86
6118546	84	84	74	79	83	87
6118547	82	84	75	80	90	88
6118548	78	82	75	81	89	84
6118549	80	84	76	82	90	82
6118550	78	80	78	80	89	88
6118551	78	80	75	82	89	85
Blank	88	91	89	88	89	84
LCS	82	81	85	79	81	84
MS	86	87	82	80	83	93
MSD	87	87	80	82	82	91

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 102990002A

Tetrachloro-m-xylene Decachlorobiphenyl

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:28 PM

Group Number: 1217424

Surrogate Quality Control

6118536	94	102
6118537	88	77
6118538	87	84
6118539	120	106
6118540	124	103
6118541	120	128*
6118542	118	122*
6118543	112	113
6118544	105	98
6118545	108	132*
6118546	133	141*
6118547	92	91
6118548	95	74
6118549	100	74
6118550	112	109
6118551	109	102
Blank	94	104
LCS	93	104
LCSD	96	108
MS	96	102
MSD	92	104

Limits: 53-139 45-120

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 102990013A
2,4-Dichlorophenylacetic
acid

6118536	80
6118537	114
6118538	74
6118539	91
6118540	88
6118541	154
6118542	134
6118545	76
6118546	89
6118547	92
6118548	94
6118549	199*
6118550	91
6118551	118
Blank	90
LCS	93
MS	97
MSD	123

Limits: 36-156

Analysis Name: 12a Pesticides by 8081A
Batch number: 103000004A
Tetrachloro-m-xylene Decachlorobiphenyl

6118536	64	61
6118537	47*	27
6118538	68	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: 01/20/11 at 01:28 PM

Group Number: 1217424

Surrogate Quality Control

6118539	52	95
6118540	74	28
6118541	72	87
6118542	60	66
6118543	44*	34
6118544	78	8*
6118545	73	123*
6118546	64	57
6118547	57	140*
6118548	54	174*
6118549	40*	0*
6118550	52	76
6118551	16*	0*
Blank	76	101
LCS	73	95
MS	23*	0*
MSD	44*	25

Limits: 50-130 20-120

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 103030016A
2,4-Dichlorophenylacetic
acid

6118543	96
6118544	106
Blank	70
LCS	91
MS	95
MSD	126

Limits: 36-156

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 10295002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6118536	78	86	63	71	77	87
6118537	85	93	67	73	79	92
6118538	79	86	69	71	70	72
6118539	76	92	73	78	77	81
6118540	81	97	79	83	82	96
6118541	74	89	78	80	78	84
6118542	78	91	79	82	80	90
6118543	72	86	76	78	74	82
6118544	78	99	83	88	86	96
6118545	72	96	82	83	80	87
Blank	40	46	43	48	45	43
OPR	72	81	69	75	75	84

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
6118536	74	87	89	91	90	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: 01/20/11 at 01:28 PM

Group Number: 1217424

Surrogate Quality Control

6118537	73	91	82	92	92	74
6118538	60	59	44	90	95	76
6118539	80	82	82	88	94	78
6118540	88	92	98	97	98	80
6118541	82	86	90	89	91	76
6118542	83	90	97	95	92	80
6118543	83	81	83	94	87	74
6118544	92	95	102	91	98	83
6118545	88	88	94	91	95	80
Blank	51	46	47	49	49	44
OPR	88	87	89	86	89	74

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

6118536	80	85	89	98	79	84
6118537	78	87	93	93	83	88
6118538	76	78	65	51	77	79
6118539	83	84	88	89	75	86
6118540	85	87	94	114	82	90
6118541	81	82	88	101	78	87
6118542	80	83	95	108	79	89
6118543	80	78	86	92	75	84
6118544	91	90	100	115	83	93
6118545	87	87	94	109	78	92
Blank	45	46	50	52	40	46
OPR	82	82	91	100	69	81

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

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 10299001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6118546	79	90	79	81	81	123
6118547	49	58	62	64	65	76
6118548	83	107	77	81	87	106
6118550	73	95	72	77	83	99
Blank	64	77	82	89	86	96
OPR	61	73	77	83	80	94

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

6118546	86	96	101	102	92	80
6118547	72	77	97	88	58	63
6118548	91	109	128	97	104	82
6118550	84	98	105	97	94	77
Blank	97	99	108	112	77	81
OPR	89	96	104	108	72	77

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: 01/20/11 at 01:28 PM

Group Number: 1217424

Surrogate Quality Control

6118546	85	100	96	107	76	81
6118547	66	69	77	101	50	56
6118548	88	92	113	136	84	96
6118550	81	88	102	119	76	88
Blank	91	91	99	114	64	73
OPR	82	83	95	111	58	66
Limits:	28-130	28-130	23-140	17-157	24-169	24-185
Analysis Name: 10a Dioxin/Furan by EPA 1613B						
Batch number: 10306001						
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6118549	63	67	54	56	54	62
6118551	71	80	73	71	74	72
Blank	29	44	35	42	39	37
OPR	51	55	49	55	51	52
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
6118549	57	60	55	71	73	68
6118551	72	66	59	79	80	74
Blank	52	39	43	88	48	46
OPR	66	55	57	66	81	59
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
6118549	67	66	69	68	61	65
6118551	72	75	73	65	70	80
Blank	48	51	53	61	30	42
OPR	65	65	70	80	49	59
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 1217424 6118536-S1

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 Perchlorate non-detects to be confirmed using EPA 6850 on samples selected by Lancaster Labs Samplers: (Signature)						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCL EPA 8270C	PAHs EPA 8270SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Amide-EPA 300.0 <i>Amide</i>	*PCBs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Pesticides EPA 8081A	*Herbicides EPA 8151	**Nitrites EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**p-NDMA EPA 1625C	**Energetics EPA 8330A			**Cyanide EPA 8330A
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-122-SA5C-SS-0.0-0.5	10.19.10	0834	soil	none	2 stainless steel sleeves																					
SL-123-SA5C-SS-0.0-0.5	10.19.10	1505	soil	none	2 stainless steel sleeves																					
SL-125-SA5C-SS-0.0-0.5	10.18.10	0835	soil	none	2 stainless steel sleeves																					
SL-127-SA5C-SS-0.0-0.5	10.18.10	0930	soil	none	2 stainless steel sleeves																					
SL-128-SA5C-SS-0.0-0.5	10.18.10	1305	soil	none	2 stainless steel sleeves																					
SL-129-SA5C-SS-0.0-0.5	10.18.10	1045	soil	none	2 stainless steel sleeves																					
SL-130-SA5C-SS-0.0-0.5	10.18.10	1420	soil	none	2 stainless steel sleeves																					
SL-132-SA5C-SS-0.0-0.5	10.18.10	1525	soil	none	2 stainless steel sleeves																					
SL-133-SA5C-SS-0.0-0.5	10.18.10	1500	soil	none	2 stainless steel sleeves																					
SL-134-SA5C-SS-0.0-0.5	10.19.10	0940	soil	none	2 stainless steel sleeves																					
SL-135-SA5C-SS-0.0-0.5	10.19.10	0910	soil	none	2 stainless steel sleeves																					
SL-115-SA5C-SS-0.0-0.5	10.19.10	1055	soil	none	2 stainless steel sleeves																					
SL-116-SA5C-SS-0.0-0.5	10.19.10	1425	soil	none	2 stainless steel sleeves																					
SL-117-SA5C-SS-0.0-0.5	10.19.10	1350	soil	none	2 stainless steel sleeves																					
SL-120-SA5C-SS-0.0-0.5	10.19.10	1344	soil	none	2 stainless steel sleeves																					
SL-121-SA5C-SS-0.0-0.5	10.19.10	1030	soil	none	2 stainless steel sleeves																					
Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)		Date/Time	Relinquished by: (Signature)		Date/Time	Relinquished by: (Signature)		Date/Time	Received for Laboratory by: (Signature)		Laboratory:													
<i>[Signature]</i>	10-20-10 1740	<i>[Signature]</i>			<i>[Signature]</i>		10/21/10 0850	<i>[Signature]</i>			<i>[Signature]</i>		Lancaster Laboratories, Inc.													
Received by: (Signature)	Date/Time	Received by: (Signature)		Date/Time	Received by: (Signature)		Date/Time	Received by: (Signature)		Date/Time	Attest No.															

Amended
COC

Perchlorate by
6850 was
added to
SL-129 on 10/25/10
per PB.
NMM/IIIIO

13013 1217424 6118536-51

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 Perchlorate non-detects to be confirmed using EPA 8850 on samples selected by Lancaster Labs Samplers: (Signature)						VOCs EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C	PAHs EPA 8270SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Alkalinity EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Pesticides EPA 8081A	*Herbicides EPA 8151	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A		**Hydrazine EPA 8315A	**r-NDMA EPA 1625C	**Ergosterols EPA 8330A	**Opicide EPA 8330A	**pH EPA 5045C
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-122-SA5C-SS-0.0-0.5	10.19.10	0834	soil	none	2 stainless steel sleeves																					
SL-123-SA5C-SS-0.0-0.5	10.19.10	1505	soil	none	2 stainless steel sleeves																					
SL-125-SA5C-SS-0.0-0.5	10.18.10	0835	soil	none	2 stainless steel sleeves																					
SL-127-SA5C-SS-0.0-0.5	10.18.10	0930	soil	none	2 stainless steel sleeves																					
SL-128-SA5C-SS-0.0-0.5	10.18.10	1305	soil	none	2 stainless steel sleeves																					
SL-129-SA5C-SS-0.0-0.5	10.18.10	1045	soil	none	2 stainless steel sleeves																					
SL-130-SA5C-SS-0.0-0.5	10.18.10	1420	soil	none	2 stainless steel sleeves																					
SL-132-SA5C-SS-0.0-0.5	10.18.10	1525	soil	none	2 stainless steel sleeves																					
SL-133-SA5C-SS-0.0-0.5	10.18.10	1500	soil	none	2 stainless steel sleeves																					
SL-134-SA5C-SS-0.0-0.5	10.19.10	0940	soil	none	2 stainless steel sleeves																					
SL-135-SA5C-SS-0.0-0.5	10.19.10	0910	soil	none	2 stainless steel sleeves																					
SL-115-SA5C-SS-0.0-0.5	10.19.10	1055	soil	none	2 stainless steel sleeves																					
SL-116-SA5C-SS-0.0-0.5	10.19.10	1425	soil	none	2 stainless steel sleeves																					
SL-117-SA5C-SS-0.0-0.5	10.19.10	1350	soil	none	2 stainless steel sleeves																					
SL-120-SA5C-SS-0.0-0.5	10.19.10	1344	soil	none	2 stainless steel sleeves																					
SL-121-SA5C-SS-0.0-0.5	10.19.10	1030	soil	none	2 stainless steel sleeves																					
Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)		Date/Time	Relinquished by: (Signature)		Date/Time	Relinquished by: (Signature)		Date/Time	Received for Laboratory by: (Signature)		Laboratory:													
	10-20-10 1740						10/24/10 0850					Lancaster Laboratories, Inc.														
Received by: (Signature)	Date/Time	Received by: (Signature)		Date/Time	Received by: (Signature)		Date/Time	Received by: (Signature)		Date/Time	Airball No.															

PS 10.21.10



January 28, 2011

Mr. Todd Burgesser
CDM Federal Services Program
555 17th Street Suite 1100
Denver, CO 80202

Dear Mr. Burgesser:

I am writing to inform you of revised analytical reports that are being issued for the SSFL Area IV Collocated Soil Sampling project.

The correction to the data affects the Quality Control summary for the Perchlorate by LCMSMS analysis only.

During an additional review of this data, it was determined that the 70% to 130%% acceptance window reported for the perchlorate Laboratory Control Spike analysis was incorrect. The acceptance window has been corrected to the project specific window of 85% to 115%. This correction does not change any of the reported sample or quality control results. Additionally the matrix spike acceptance windows were updated to reflect the project windows of 80% to 120% recovery with a %RPD of 20%.

The revised analytical reports reflect these corrections and are attached.

You are a valued client and we apologize for any inconvenience that this incident may have caused. If you have any questions or require further assistance, please call me at 717-656-2300, Ext. 1265. We appreciate your business and look forward to continuing to serve your laboratory needs.

Sincerely,

Jenifer E. Hess
Manager
Environmental Sciences Division

JEH/mcs
Enclosures

cc: Nicole Maljovec

SDG	Group #	Sample #	Sample Description	Collection Date
DE001	1217631	6119976	SL-100-SA5C-SS-0.0-0.5 Grab Soil	10/21/2010 08:35:00
DE001	1217631	6119967	SL-144-SA5C-SS-0.0-0.5 Grab Soil	10/20/2010 13:30:00
DE002	1217632	6119983	SL-079-SA5C-SS-0.0-0.5 Grab Soil	10/21/2010 11:15:00
DE003	1217761	6120956	SL-050-SA5C-SS-0.0-0.5 Soil	10/22/2010 09:10:00
DE003	1217761	6120965	SL-061-SA5C-SS-0.0-0.5 Soil	10/22/2010 10:40:00
DE004	1218260	6124085	SL-008-SA5C-SS-0.0-0.5 Grab Soil	10/26/2010 10:10:00
DE008	1219732	6132121	SL-118-SA5C-SB-4.0-5.0 Grab Soil	11/03/2010 11:50:00
DE008	1219732	6132126	SL-120-SA5C-SB-9.0-10.0 Grab Soil	11/03/2010 14:15:00
DE009	1219878	6132736	SL-134-SA5C-SB-4.0-5.0 Soil	11/04/2010 15:35:00
DE010	1220069	6133890	SL-129-SA5C-SB-4.0-5.0 Grab Soil	11/05/2010 10:50:00
DE012	1220507	6136196	SL-102-SA5C-SB-4.0-5.0 Soil	11/09/2010 10:55:00
DE013	1220753	6137485	SL-111-SA5C-SB-4.0-5.0 Soil	11/10/2010 14:45:00
DE015	1221175	6140325	SL-096-SA5C-SB-4.0-5.0 Soil	11/12/2010 10:50:00
DE017	1221705	6143354	SL-085-SA5C-SB-2.5-3.0 Soil	11/16/2010 15:03:00
DE018	1221905	6144595	SL-079-SA5C-SB-8.5-9.5 Soil	11/17/2010 12:10:00
DE020	1222291	6147113	SL-051-SA5C-SB-3.0-4.0 Soil	11/19/2010 11:45:00
DE021	1222508	6148501	SL-078-SA5C-SB-4.0-5.0 Soil	11/22/2010 15:14:00
DE022	1222698	6149365	SL-077-SA5C-SB-3.0-4.0 Soil	11/23/2010 11:30:00
DE024	1223083	6151502	SL-058-SA5C-SB-3.0-4.0 Soil	11/29/2010 09:45:00
DE027	1223723	6154847	SL-039-SA5C-SB-4.0-5.0 Soil	12/02/2010 14:49:00
DE027	1223723	6154852	SL-040-SA5C-SB-9.0-10.0 Soil	12/02/2010 12:26:00
DE028	1223933	6156144	SL-031-SA5C-SB-9.0-10.0 Soil	12/03/2010 12:44:00
DE029	1224161	6157201	SL-025-SA5C-SB-4.0-5.0 Soil	12/06/2010 15:13:00
DOE01	1217424	6118541	SL-129-SA5C-SS-0.0-0.5 Soil	10/18/2010 10:45:00

Explanation of Symbols and Abbreviations

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

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

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

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

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

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

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

December 01, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/22/2010

Group Number: 1217631

SDG: DE001

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

Client Sample DescriptionLancaster Labs (LLI) #

SL-124-SA5C-SS-0.0-0.5 Grab Soil	6119960
SL-136-SA5C-SS-0.0-0.5 Grab Soil	6119961
SL-136-SA5C-SS-0.0-0.5 MS Grab Soil	6119962
SL-136-SA5C-SS-0.0-0.5-MSD Grab Soil	6119963
SL-136-SA5C-SS-0.0-0.5-DUP Grab Soil	6119964
SL-137-SA5C-SS-0.0-0.5 Grab Soil	6119965
SL-112-SA5C-SS-0.0-0.5 Grab Soil	6119966
SL-144-SA5C-SS-0.0-0.5 Grab Soil	6119967
SL-145-SA5C-SS-0.0-0.5 Grab Soil	6119968
DUP-01-SA5C-QC-102010 Grab Soil	6119969
SL-143-SA5C-SS-0.0-0.5 Grab Soil	6119970
SL-141-SA5C-SS-0.0-0.5 Grab Soil	6119971
SL-104-SA5C-SS-0.0-0.5 Grab Soil	6119972
SL-098-SA5C-SS-0.0-0.5 Grab Soil	6119973
SL-099-SA5C-SS-0.0-0.5 Grab Soil	6119974
SL-103-SA5C-SS-0.0-0.5 Grab Soil	6119975
SL-100-SA5C-SS-0.0-0.5 Grab Soil	6119976
SL-101-SA5C-SS-0.0-0.5 Grab Soil	6119977
SL-107-SA5C-SS-0.0-0.5 Grab Soil	6119978

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



Analysis Report

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

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

Attn: John Wondolleck

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

Respectfully Submitted,

A handwritten signature in black ink that reads 'Dorothy M. Love'.

Dorothy M. Love
Group Leader

Sample Description: SL-124-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-124-SA5C-SS-0.0-0.5

LLI Sample # SW 6119960
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:20 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL124 SDG#: DE001-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	19	U 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1

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

Sample Description: SL-124-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-124-SA5C-SS-0.0-0.5

LLI Sample # SW 6119960
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:20 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL124 SDG#: DE001-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	19	U 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:					
	1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	92	7.4	19	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	19	10
10138	Anthracene	120-12-7	440	3.7	19	10
10138	Benzo(a)anthracene	56-55-3	3,000	7.4	19	10
10138	Benzo(a)pyrene	50-32-8	1,800	7.4	19	10
10138	Benzo(b)fluoranthene	205-99-2	2,700	7.4	19	10
10138	Benzo(g,h,i)perylene	191-24-2	570	7.4	19	10
10138	Benzo(k)fluoranthene	207-08-9	1,100	7.4	19	10
10138	Chrysene	218-01-9	3,400	3.7	19	10
10138	Dibenz(a,h)anthracene	53-70-3	230	7.4	19	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	67	U 67	200	10
10138	Fluoranthene	206-44-0	8,400	37	93	50
10138	Fluorene	86-73-7	53	7.4	19	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	620	7.4	19	10
10138	1-Methylnaphthalene	90-12-0	7.4	U 7.4	19	10
10138	2-Methylnaphthalene	91-57-6	7.4	U 7.4	19	10
10138	Naphthalene	91-20-3	11	J 7.4	19	10
10138	N-Nitrosodimethylamine	62-75-9	7.4	U 7.4	19	10
10138	Phenanthrene	85-01-8	3,000	7.4	19	10
10138	Pyrene	129-00-0	7,600	37	93	50
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0	1
10401	Dalapon	75-99-0	4.9	U 4.9	10	1
10401	2,4-DB	94-82-6	6.0	U 6.0	6.0	1
10401	Dicamba	1918-00-9	0.45	U 0.45	1.3	1
10401	Dinoseb	88-85-7	0.89	U 0.89	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.89	U 0.89	1.9	1
10401	MCPA	94-74-6	650	85	280	1
10401	MCPP (Mecoprop)	93-65-2	84	U 84	280	1
10401	2,4,5-T	93-76-5	0.091	U 0.091	0.19	1
10401	2,4,5-TP	93-72-1	0.084	U 0.084	0.19	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does					

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

Sample Description: SL-124-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-124-SA5C-SS-0.0-0.5

LLI Sample # SW 6119960
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:20 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL124 SDG#: DE001-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.37 U	0.37	0.93	5
01363	Alpha BHC	319-84-6	0.19 U	0.19	0.93	5
01363	Beta BHC	319-85-7	0.33 U	0.33	0.93	5
01363	Gamma BHC - Lindane	58-89-9	0.19 U	0.19	0.93	5
01363	Chlordane	57-74-9	38 U	38	38	5
01363	p,p-DDD	72-54-8	0.37 U	0.37	1.9	5
01363	p,p-DDE	72-55-9	23 U	23	23	25
01363	p,p-DDT	50-29-3	41 U	41	41	25
01363	Delta BHC	319-86-8	0.20 U	0.20	0.93	5
01363	Dieldrin	60-57-1	15 U	15	15	25
01363	Endosulfan I	959-98-8	0.25 U	0.25	0.93	5
01363	Endosulfan II	33213-65-9	4.6 U	4.6	4.6	5
01363	Endosulfan Sulfate	1031-07-8	1.3 U	1.3	1.9	5
01363	Endrin	72-20-8	0.37 U	0.37	1.9	5
01363	Endrin Aldehyde	7421-93-4	3.8 U	3.8	3.8	5
01363	Endrin Ketone	53494-70-5	0.37 U	0.37	1.9	5
01363	Heptachlor	76-44-8	0.33 U	0.33	0.93	5
01363	Heptachlor Epoxide	1024-57-3	4.4 U	4.4	4.4	5
01363	Methoxychlor	72-43-5	1.9 U	1.9	9.3	5
01363	Mirex	2385-85-5	1.2 U	1.2	1.9	5
01363	Toxaphene	8001-35-2	12 U	12	37	5
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	280 U	280	920	250
10225	Aroclor 5442	12642-23-8	280 U	280	920	250
10225	Aroclor 5460	11126-42-4	280 U	280	920	250
10225	PCB-1016	12674-11-2	92 U	92	470	250
10225	PCB-1221	11104-28-2	140 U	140	470	250
10225	PCB-1232	11141-16-5	140 U	140	470	250
10225	PCB-1242	53469-21-9	140 U	140	470	250
10225	PCB-1248	12672-29-6	92 U	92	470	250
10225	PCB-1254	11097-69-1	1,100	92	470	250
10225	PCB-1260	11096-82-5	92 U	92	470	250
10225	PCB-1262	37324-23-5	92 U	92	470	250
10225	PCB-1268	11100-14-4	92 U	92	470	250

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

Sample Description: SL-124-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-124-SA5C-SS-0.0-0.5

LLI Sample # SW 6119960
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:20 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL124 SDG#: DE001-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,300	5.39	21.4	1
07914	Boron	7440-42-8	3.23 J	0.954	5.36	1
01650	Calcium	7440-70-2	4,010	6.57	21.4	1
01654	Iron	7439-89-6	21,300	5.05	21.4	1
01656	Lithium	7439-93-2	19.9	0.24	2.1	1
01657	Magnesium	7439-95-4	3,750	2.72	10.7	1
06958	Manganese	7439-96-5	341	0.0836	0.536	1
10145	Phosphorus	7723-14-0	359	0.600	10.7	1
01662	Potassium	7440-09-7	3,540	19.3	53.6	1
01667	Sodium	7440-23-5	104 J	40.0	107	1
07968	Strontium	7440-24-6	23.4	0.0665	0.536	1
06969	Tin	7440-31-5	2.31 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,380	2.04	5.36	5
10146	Zirconium	7440-67-7	4.60 J	0.900	5.36	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.257	0.0649	0.216	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.93	0.0649	0.433	2
06126	Barium	7440-39-3	154	0.117	0.433	2
06127	Beryllium	7440-41-7	0.747	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.321	0.0390	0.108	2
06131	Chromium	7440-47-3	27.8	0.130	0.433	2
06132	Cobalt	7440-48-4	7.06	0.0216	0.108	2
06133	Copper	7440-50-8	14.5	0.0714	0.433	2
06135	Lead	7439-92-1	15.5	0.0113	0.216	2
06138	Molybdenum	7439-98-7	0.841	0.0541	0.108	2
06139	Nickel	7440-02-0	17.1	0.108	0.433	2
06141	Selenium	7782-49-2	0.172 J	0.0433	0.433	2
06142	Silver	7440-22-4	0.103 J	0.0130	0.108	2
06145	Thallium	7440-28-0	0.328	0.0325	0.108	2
06148	Vanadium	7440-62-2	53.8	0.0238	0.108	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0093 J	0.0032	0.111	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	0.94 J	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.56 J	0.22	1.1	1

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

Sample Description: SL-124-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-124-SA5C-SS-0.0-0.5

LLI Sample # SW 6119960
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL124 SDG#: DE001-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	206	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	7.71	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	10.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/12/2010 22:37	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 19:56	Gregory J Drahovsky	10
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/17/2010 04:18	Gregory J Drahovsky	50
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 08:32	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 00:29	Jamie L Brillhart	5
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 00:42	Jamie L Brillhart	25
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 06:34	Richard A Shober	250
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1

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

Sample Description: SL-124-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-124-SA5C-SS-0.0-0.5

LLI Sample # SW 6119960
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:20 by AKW

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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL124 SDG#: DE001-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 10:19	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:25	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 15:55	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 15:55	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 15:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 15:55	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:02	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 15:25	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 12:00	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 12:26	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119961
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	200	U 200	590	1
04688	Benidine	92-87-5	1,400	U 1,400	3,900	1
04688	Benzo(a)pyrene	50-32-8	43	J 20	200	1
04688	Benzoic acid	65-85-0	200	U 200	590	1
04688	Benzyl alcohol	100-51-6	200	U 200	590	1
04688	4-Bromophenyl-phenylether	101-55-3	20	U 20	200	1
04688	Di-n-butylphthalate	84-74-2	20	U 20	200	1
04688	Carbazole	86-74-8	20	U 20	200	1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	200	1
04688	4-Chloroaniline	106-47-8	78	U 78	200	1
04688	bis(2-Chloroethoxy)methane	111-91-1	20	U 20	200	1
04688	bis(2-Chloroethyl)ether	111-44-4	20	U 20	200	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	20	U 20	200	1
04688	2-Chloronaphthalene	91-58-7	20	U 20	200	1
04688	2-Chlorophenol	95-57-8	20	U 20	200	1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	200	1
04688	Dibenzofuran	132-64-9	20	U 20	200	1
04688	1,2-Dichlorobenzene	95-50-1	20	U 20	200	1
04688	1,3-Dichlorobenzene	541-73-1	20	U 20	200	1
04688	1,4-Dichlorobenzene	106-46-7	20	U 20	200	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390	1
04688	2,4-Dichlorophenol	120-83-2	20	U 20	200	1
04688	Diethylphthalate	84-66-2	20	U 20	200	1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	200	1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	200	1
04688	Dimethylphthalate	131-11-3	20	U 20	200	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	200	U 200	590	1
04688	2,4-Dinitrophenol	51-28-5	780	U 780	2,400	1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	200	1
04688	2,6-Dinitrotoluene	606-20-2	20	U 20	200	1
04688	1,2-Diphenylhydrazine	122-66-7	20	U 20	200	1
04688	Hexachlorobenzene	118-74-1	20	U 20	200	1
04688	Hexachlorobutadiene	87-68-3	78	U 78	200	1
04688	Hexachlorocyclopentadiene	77-47-4	200	U 200	590	1
04688	Hexachloroethane	67-72-1	20	U 20	200	1
04688	Isophorone	78-59-1	20	U 20	200	1
04688	2-Methylphenol	95-48-7	39	U 39	200	1
04688	4-Methylphenol	106-44-5	39	U 39	200	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	20	U 20	200	1
04688	3-Nitroaniline	99-09-2	39	U 39	200	1
04688	4-Nitroaniline	100-01-6	78	U 78	200	1
04688	Nitrobenzene	98-95-3	20	U 20	200	1
04688	2-Nitrophenol	88-75-5	20	U 20	200	1
04688	4-Nitrophenol	100-02-7	200	U 200	590	1
04688	N-Nitroso-di-n-propylamine	621-64-7	20	U 20	200	1
04688	N-Nitrosodiphenylamine	86-30-6	20	U 20	200	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119961
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	20	U 20	200	1
04688	Pentachlorophenol	87-86-5	200	U 200	590	1
04688	Phenol	108-95-2	20	U 20	200	1
04688	1,2,4-Trichlorobenzene	120-82-1	20	U 20	200	1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	200	1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	200	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:					
	1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.8	U 7.8	20	10
10138	Acenaphthylene	208-96-8	3.9	U 3.9	20	10
10138	Anthracene	120-12-7	3.9	U 3.9	20	10
10138	Benzo(a)anthracene	56-55-3	10	J 7.8	20	10
10138	Benzo(b)fluoranthene	205-99-2	89	7.8	20	10
10138	Benzo(g,h,i)perylene	191-24-2	23	7.8	20	10
10138	Benzo(k)fluoranthene	207-08-9	7.8	U 7.8	20	10
10138	Butylbenzylphthalate	85-68-7	71	U 71	210	10
10138	Chrysene	218-01-9	60	3.9	20	10
10138	Dibenz(a,h)anthracene	53-70-3	13	J 7.8	20	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	71	U 71	210	10
10138	Fluoranthene	206-44-0	7.8	U 7.8	20	10
10138	Fluorene	86-73-7	7.8	U 7.8	20	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	11	J 7.8	20	10
10138	1-Methylnaphthalene	90-12-0	7.8	U 7.8	20	10
10138	2-Methylnaphthalene	91-57-6	7.8	U 7.8	20	10
10138	Naphthalene	91-20-3	9.7	J 7.8	20	10
10138	N-Nitrosodimethylamine	62-75-9	7.8	U 7.8	20	10
10138	Phenanthrene	85-01-8	7.8	U 7.8	20	10
10138	Pyrene	129-00-0	21	7.8	20	10
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	7.1	U 7.1	21	5
10401	Dalapon	75-99-0	26	U 26	53	5
10401	2,4-DB	94-82-6	3.6	U 3.6	10	5
10401	Dicamba	1918-00-9	2.4	U 2.4	7.1	5
10401	Dinoseb	88-85-7	4.7	U 4.7	14	5
10401	2,4-DP (Dichlorprop)	120-36-5	4.7	U 4.7	10	5
10401	MCPA	94-74-6	450	U 450	1,500	5
10401	MCPP (Mecoprop)	93-65-2	440	U 440	1,500	5
10401	2,4,5-T	93-76-5	0.48	U 0.48	1.0	5
10401	2,4,5-TP	93-72-1	0.44	U 0.44	1.0	5
	The recovery for Dinoseb is outside the QC limits. However, this compound does					

Sample Description: SL-136-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119961
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. Due to the nature of the sample extract matrix, a dilution was used for the analysis. The reporting limits were raised accordingly.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.078 U	0.078	0.20	1
01363	Alpha BHC	319-84-6	0.040 U	0.040	0.20	1
01363	Beta BHC	319-85-7	0.086 J	0.071	0.20	1
01363	Gamma BHC - Lindane	58-89-9	0.040 U	0.040	0.20	1
01363	Chlordane	57-74-9	2.8 U	2.8	4.0	1
01363	p,p-DDD	72-54-8	1.1 U	1.1	1.1	1
01363	p,p-DDE	72-55-9	0.38 U	0.38	0.40	1
01363	p,p-DDT	50-29-3	0.74 U	0.74	0.74	1
01363	Delta BHC	319-86-8	0.063 J	0.042	0.20	1
01363	Dieldrin	60-57-1	0.48 U	0.48	0.48	1
01363	Endosulfan I	959-98-8	0.052 U	0.052	0.20	1
01363	Endosulfan II	33213-65-9	0.39 U	0.39	0.40	1
01363	Endosulfan Sulfate	1031-07-8	0.31 U	0.31	0.40	1
01363	Endrin	72-20-8	0.078 U	0.078	0.40	1
01363	Endrin Aldehyde	7421-93-4	0.21 U	0.21	0.40	1
01363	Endrin Ketone	53494-70-5	1.9 U	1.9	1.9	1
01363	Heptachlor	76-44-8	0.071 U	0.071	0.20	1
01363	Heptachlor Epoxide	1024-57-3	0.041 U	0.041	0.20	1
01363	Methoxychlor	72-43-5	0.55 U	0.55	2.0	1
01363	Mirex	2385-85-5	0.48 U	0.48	0.48	1
01363	Toxaphene	8001-35-2	2.6 U	2.6	7.8	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.9	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.9	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.9	1
10225	PCB-1016	12674-11-2	0.39 U	0.39	2.0	1
10225	PCB-1221	11104-28-2	0.59 U	0.59	2.0	1
10225	PCB-1232	11141-16-5	0.61 U	0.61	2.0	1
10225	PCB-1242	53469-21-9	0.59 U	0.59	2.0	1
10225	PCB-1248	12672-29-6	0.39 U	0.39	2.0	1
10225	PCB-1254	11097-69-1	7.1	0.39	2.0	1
10225	PCB-1260	11096-82-5	5.4	0.39	2.0	1
10225	PCB-1262	37324-23-5	0.39 U	0.39	2.0	1
10225	PCB-1268	11100-14-4	0.39 U	0.39	2.0	1
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Metals SW-846 6010B mg/kg mg/kg mg/kg						

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119961
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

CDM Federal Programs Corp.
14420 Albemarle Point Place
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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,600	5.79	23.0	1
07914	Boron	7440-42-8	2.03 J	1.03	5.76	1
01650	Calcium	7440-70-2	44,700	7.06	23.0	1
01654	Iron	7439-89-6	16,500	5.43	23.0	1
01656	Lithium	7439-93-2	17.2	0.25	2.3	1
01657	Magnesium	7439-95-4	3,200	2.93	11.5	1
06958	Manganese	7439-96-5	177	0.0899	0.576	1
10145	Phosphorus	7723-14-0	230	0.645	11.5	1
01662	Potassium	7440-09-7	1,810	20.7	57.6	1
01667	Sodium	7440-23-5	92.7 J	43.0	115	1
07968	Strontium	7440-24-6	52.0	0.0714	0.576	1
06969	Tin	7440-31-5	2.19 J	1.15	11.5	1
06970	Titanium	7440-32-6	854	0.438	1.15	1
10146	Zirconium	7440-67-7	3.61 J	0.968	5.76	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.214 J	0.0691	0.230	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.64	0.0691	0.461	2
06126	Barium	7440-39-3	109	0.124	0.461	2
06127	Beryllium	7440-41-7	0.615	0.0184	0.115	2
06128	Cadmium	7440-43-9	0.497	0.0415	0.115	2
06131	Chromium	7440-47-3	21.3	0.138	0.461	2
06132	Cobalt	7440-48-4	5.45	0.0230	0.115	2
06133	Copper	7440-50-8	14.7	0.0760	0.461	2
06135	Lead	7439-92-1	10.2	0.0120	0.230	2
06138	Molybdenum	7439-98-7	0.492	0.0576	0.115	2
06139	Nickel	7440-02-0	14.3	0.115	0.461	2
06141	Selenium	7782-49-2	0.239 J	0.0461	0.461	2
06142	Silver	7440-22-4	0.0554 J	0.0138	0.115	2
06145	Thallium	7440-28-0	0.213	0.0346	0.115	2
06148	Vanadium	7440-62-2	38.3	0.0253	0.115	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0042 J	0.0031	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.0 J	0.94	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	10.6 U	10.6	35.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.54 J	0.24	1.2	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119961
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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Submitted: 10/22/2010 08:50

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SL136 SDG#: DE001-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	235	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	8.46	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	14.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/12/2010 21:21	Ryan P Byrne	1
10138	Selected SVOAs in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 15:53	Joseph M Gambler	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	11/01/2010 06:50	Michele D Hamilton	5
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 00:57	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 06:52	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119961
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:04	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 15:36	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 15:36	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 15:36	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 15:36	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:03	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 14:14	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 12:00	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 12:40	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	2	10309162401A	11/05/2010 09:47	William C Schwebel	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119962
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,900	20	200	1
04688	Acenaphthylene	208-96-8	1,900	20	200	1
04688	Aniline	62-53-3	1,200	200	590	1
04688	Anthracene	120-12-7	1,900	20	200	1
04688	Benziidine	92-87-5	1,400	U 1,400	3,900	1
04688	Benzo(a)anthracene	56-55-3	1,900	20	200	1
04688	Benzo(a)pyrene	50-32-8	1,800	20	200	1
04688	Benzo(b)fluoranthene	205-99-2	1,700	20	200	1
04688	Benzo(g,h,i)perylene	191-24-2	2,000	20	200	1
04688	Benzo(k)fluoranthene	207-08-9	1,800	20	200	1
04688	Benzoic acid	65-85-0	1,800	200	590	1
04688	Benzyl alcohol	100-51-6	1,800	200	590	1
04688	4-Bromophenyl-phenylether	101-55-3	2,000	20	200	1
04688	Butylbenzylphthalate	85-68-7	1,900	20	200	1
04688	Di-n-butylphthalate	84-74-2	1,900	20	200	1
04688	Carbazole	86-74-8	1,800	20	200	1
04688	4-Chloro-3-methylphenol	59-50-7	1,700	39	200	1
04688	4-Chloroaniline	106-47-8	850	78	200	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,700	20	200	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	20	200	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,600	20	200	1
04688	2-Chloronaphthalene	91-58-7	1,900	20	200	1
04688	2-Chlorophenol	95-57-8	1,800	20	200	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	39	200	1
04688	Chrysene	218-01-9	1,900	20	200	1
04688	Dibenz(a,h)anthracene	53-70-3	2,000	20	200	1
04688	Dibenzofuran	132-64-9	1,800	20	200	1
04688	1,2-Dichlorobenzene	95-50-1	1,700	20	200	1
04688	1,3-Dichlorobenzene	541-73-1	1,700	20	200	1
04688	1,4-Dichlorobenzene	106-46-7	1,600	20	200	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,500	120	390	1
04688	2,4-Dichlorophenol	120-83-2	1,800	20	200	1
04688	Diethylphthalate	84-66-2	1,800	20	200	1
04688	2,4-Dimethylphenol	105-67-9	1,800	39	200	1
04688	3,5-Dimethylphenol	108-68-9	1,800	39	200	1
04688	Dimethylphthalate	131-11-3	1,800	20	200	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,100	200	590	1
04688	2,4-Dinitrophenol	51-28-5	1,900	J 780	2,400	1
04688	2,4-Dinitrotoluene	121-14-2	1,700	39	200	1
04688	2,6-Dinitrotoluene	606-20-2	1,900	20	200	1
04688	1,2-Diphenylhydrazine	122-66-7	2,000	20	200	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,900	20	390	1
04688	Fluoranthene	206-44-0	1,800	20	200	1
04688	Fluorene	86-73-7	1,800	20	200	1
04688	Hexachlorobenzene	118-74-1	1,900	20	200	1
04688	Hexachlorobutadiene	87-68-3	1,800	78	200	1
04688	Hexachlorocyclopentadiene	77-47-4	1,800	200	590	1
04688	Hexachloroethane	67-72-1	1,600	20	200	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,900	20	200	1
04688	Isophorone	78-59-1	1,700	20	200	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119962
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,800	20	200	1
04688	2-Methylnaphthalene	91-57-6	1,700	20	200	1
04688	2-Methylphenol	95-48-7	1,700	39	200	1
04688	4-Methylphenol	106-44-5	1,800	39	200	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,800	20	200	1
04688	2-Nitroaniline	88-74-4	1,900	20	200	1
04688	3-Nitroaniline	99-09-2	1,700	39	200	1
04688	4-Nitroaniline	100-01-6	1,600	78	200	1
04688	Nitrobenzene	98-95-3	1,800	20	200	1
04688	2-Nitrophenol	88-75-5	1,800	20	200	1
04688	4-Nitrophenol	100-02-7	1,700	200	590	1
04688	N-Nitrosodimethylamine	62-75-9	1,700	39	200	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	20	200	1
04688	N-Nitrosodiphenylamine	86-30-6	2,000	20	200	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,900	20	200	1
04688	Pentachlorophenol	87-86-5	810	200	590	1
04688	Phenanthrene	85-01-8	1,900	20	200	1
04688	Phenol	108-95-2	1,700	20	200	1
04688	Pyrene	129-00-0	1,800	20	200	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,800	20	200	1
04688	2,4,5-Trichlorophenol	95-95-4	1,900	39	200	1
04688	2,4,6-Trichlorophenol	88-06-2	2,000	39	200	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	36	7.8	20	10
10138	Acenaphthylene	208-96-8	34	3.9	20	10
10138	Anthracene	120-12-7	35	3.9	20	10
10138	Benzo(a)anthracene	56-55-3	45	7.8	20	10
10138	Benzo(a)pyrene	50-32-8	56	7.8	20	10
10138	Benzo(b)fluoranthene	205-99-2	110	7.8	20	10
10138	Benzo(g,h,i)perylene	191-24-2	29	7.8	20	10
10138	Benzo(k)fluoranthene	207-08-9	47	7.8	20	10
10138	Butylbenzylphthalate	85-68-7	71	U	71	10
10138	Di-n-butylphthalate	84-74-2	71	U	71	10
10138	Chrysene	218-01-9	82	3.9	20	10
10138	Dibenz(a,h)anthracene	53-70-3	28	7.8	20	10
10138	Diethylphthalate	84-66-2	71	U	71	10
10138	Dimethylphthalate	131-11-3	71	U	71	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	72	J	71	10
10138	Fluoranthene	206-44-0	45	7.8	20	10

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119962
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Fluorene	86-73-7	36	7.8	20	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	26	7.8	20	10
10138	1-Methylnaphthalene	90-12-0	38	7.8	20	10
10138	2-Methylnaphthalene	91-57-6	34	7.8	20	10
10138	Naphthalene	91-20-3	44	7.8	20	10
10138	N-Nitrosodimethylamine	62-75-9	35	7.8	20	10
10138	Di-n-octylphthalate	117-84-0	71	71	210	10
10138	Phenanthrene	85-01-8	38	7.8	20	10
10138	Pyrene	129-00-0	49	7.8	20	10
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	19	J 7.1	21	5
10401	Dalapon	75-99-0	26	U 26	53	5
10401	2,4-DB	94-82-6	12	3.6	10	5
10401	Dicamba	1918-00-9	2.4	U 2.4	7.1	5
10401	Dinoseb	88-85-7	4.7	U 4.7	14	5
10401	2,4-DP (Dichlorprop)	120-36-5	5.8	J 4.7	10	5
10401	MCPA	94-74-6	920	J 450	1,500	5
10401	MCPP (Mecoprop)	93-65-2	740	J 440	1,500	5
10401	2,4,5-T	93-76-5	1.4	0.48	1.0	5
10401	2,4,5-TP	93-72-1	1.0	0.45	1.0	5
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Due to the nature of the sample extract matrix, a dilution was used for the analysis. The reporting limits were raised accordingly.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.21	0.078	0.20	1
01363	Alpha BHC	319-84-6	0.22	0.040	0.20	1
01363	Beta BHC	319-85-7	0.24	0.071	0.20	1
01363	Gamma BHC - Lindane	58-89-9	0.34	0.040	0.20	1
01363	Chlordane	57-74-9	3.5	U 3.5	4.0	1
01363	p,p-DDD	72-54-8	1.4	0.078	0.40	1
01363	p,p-DDE	72-55-9	0.82	0.078	0.40	1
01363	p,p-DDT	50-29-3	1.2	0.078	0.40	1
01363	Delta BHC	319-86-8	0.26	0.042	0.20	1
01363	Dieldrin	60-57-1	0.81	0.078	0.40	1
01363	Endosulfan I	959-98-8	0.33	0.052	0.20	1
01363	Endosulfan II	33213-65-9	0.82	0.078	0.40	1
01363	Endosulfan Sulfate	1031-07-8	0.72	0.078	0.40	1
01363	Endrin	72-20-8	0.67	0.078	0.40	1
01363	Endrin Aldehyde	7421-93-4	0.85	0.078	0.40	1
01363	Endrin Ketone	53494-70-5	0.80	0.078	0.40	1
01363	Heptachlor	76-44-8	0.31	0.071	0.20	1
01363	Heptachlor Epoxide	1024-57-3	0.19	J 0.040	0.20	1
01363	Methoxychlor	72-43-5	4.5	0.40	2.0	1
01363	Mirex	2385-85-5	0.46	0.078	0.40	1
01363	Toxaphene	8001-35-2	2.6	U 2.6	7.8	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119962
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.9	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.9	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.9	1
10225	PCB-1016	12674-11-2	17	0.39	2.0	1
10225	PCB-1221	11104-28-2	0.59 U	0.59	2.0	1
10225	PCB-1232	11141-16-5	0.61 U	0.61	2.0	1
10225	PCB-1242	53469-21-9	0.59 U	0.59	2.0	1
10225	PCB-1248	12672-29-6	0.39 U	0.39	2.0	1
10225	PCB-1254	11097-69-1	21	0.39	2.0	1
10225	PCB-1260	11096-82-5	26	0.39	2.0	1
10225	PCB-1262	37324-23-5	0.39 U	0.39	2.0	1
10225	PCB-1268	11100-14-4	0.39 U	0.39	2.0	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,500	5.85	23.3	1
07914	Boron	7440-42-8	222	1.04	5.82	1
01650	Calcium	7440-70-2	39,500	7.13	23.3	1
01654	Iron	7439-89-6	17,200	5.48	23.3	1
01656	Lithium	7439-93-2	132	0.26	2.3	1
01657	Magnesium	7439-95-4	3,630	2.96	11.6	1
06958	Manganese	7439-96-5	259	0.0907	0.582	1
10145	Phosphorus	7723-14-0	374	0.652	11.6	1
01662	Potassium	7440-09-7	3,280	20.9	58.2	1
01667	Sodium	7440-23-5	1,270	43.4	116	1
07968	Strontium	7440-24-6	159	0.0721	0.582	1
06969	Tin	7440-31-5	396	1.16	11.6	1
06970	Titanium	7440-32-6	1,160	0.884	2.33	2
10146	Zirconium	7440-67-7	118	0.977	5.82	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.818	0.0678	0.226	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.29	0.0678	0.452	2
06126	Barium	7440-39-3	176	0.305	1.13	5
06127	Beryllium	7440-41-7	1.60	0.0181	0.113	2
06128	Cadmium	7440-43-9	1.73	0.0407	0.113	2
06131	Chromium	7440-47-3	36.2	0.136	0.452	2
06132	Cobalt	7440-48-4	63.2	0.0226	0.113	2
06133	Copper	7440-50-8	28.3	0.0746	0.452	2
06135	Lead	7439-92-1	12.9	0.0118	0.226	2
06138	Molybdenum	7439-98-7	13.7	0.0565	0.113	2
06139	Nickel	7440-02-0	27.5	0.113	0.452	2
06141	Selenium	7782-49-2	2.65	0.0452	0.452	2

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119962
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06142	Silver	7440-22-4	13.0	0.0136	0.113	2
06145	Thallium	7440-28-0	0.828	0.0339	0.113	2
06148	Vanadium	7440-62-2	70.3	0.0249	0.113	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.207	0.0033	0.115	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	11.7	0.94	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	636	10.6	35.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	42.1	1.2	5.9	5
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture CDM	n.a.	14.9	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/12/2010 21:46	Ryan P Byrne	1
10138	Selected SVOAs in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 16:27	Joseph M Gambler	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	11/01/2010 07:18	Michele D Hamilton	5
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 01:12	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 07:11	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119962
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 09:23	Damary Valentin	2
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:15	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 19:18	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 15:46	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 15:46	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 15:46	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:07	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 15:11	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 11:36	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	2	10304243201A	11/02/2010 13:15	William L Hamaker Jr	5
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11625	Moisture CDM	EPA 160.3 modified	2	10309162401A	11/05/2010 09:47	William C Schwebel	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5-MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119963
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,700	20	200	1
04688	Acenaphthylene	208-96-8	1,800	20	200	1
04688	Aniline	62-53-3	1,300	200	590	1
04688	Anthracene	120-12-7	1,800	20	200	1
04688	Benziidine	92-87-5	3,800	J 1,400	3,900	1
04688	Benzo(a)anthracene	56-55-3	1,900	20	200	1
04688	Benzo(a)pyrene	50-32-8	1,700	20	200	1
04688	Benzo(b)fluoranthene	205-99-2	1,600	20	200	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	20	200	1
04688	Benzo(k)fluoranthene	207-08-9	1,700	20	200	1
04688	Benzoic acid	65-85-0	1,500	200	590	1
04688	Benzyl alcohol	100-51-6	1,800	200	590	1
04688	4-Bromophenyl-phenylether	101-55-3	1,900	20	200	1
04688	Butylbenzylphthalate	85-68-7	1,900	20	200	1
04688	Di-n-butylphthalate	84-74-2	1,800	20	200	1
04688	Carbazole	86-74-8	1,800	20	200	1
04688	4-Chloro-3-methylphenol	59-50-7	1,700	39	200	1
04688	4-Chloroaniline	106-47-8	1,200	78	200	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,600	20	200	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,500	20	200	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,500	20	200	1
04688	2-Chloronaphthalene	91-58-7	2,100	20	200	1
04688	2-Chlorophenol	95-57-8	1,700	20	200	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	39	200	1
04688	Chrysene	218-01-9	1,800	20	200	1
04688	Dibenz(a,h)anthracene	53-70-3	1,800	20	200	1
04688	Dibenzofuran	132-64-9	1,800	20	200	1
04688	1,2-Dichlorobenzene	95-50-1	1,500	20	200	1
04688	1,3-Dichlorobenzene	541-73-1	1,400	20	200	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	20	200	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,800	120	390	1
04688	2,4-Dichlorophenol	120-83-2	1,800	20	200	1
04688	Diethylphthalate	84-66-2	1,700	20	200	1
04688	2,4-Dimethylphenol	105-67-9	1,800	39	200	1
04688	3,5-Dimethylphenol	108-68-9	1,800	39	200	1
04688	Dimethylphthalate	131-11-3	1,800	20	200	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	900	200	590	1
04688	2,4-Dinitrophenol	51-28-5	1,500	J 780	2,400	1
04688	2,4-Dinitrotoluene	121-14-2	1,600	39	200	1
04688	2,6-Dinitrotoluene	606-20-2	1,800	20	200	1
04688	1,2-Diphenylhydrazine	122-66-7	1,900	20	200	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,900	20	390	1
04688	Fluoranthene	206-44-0	1,700	20	200	1
04688	Fluorene	86-73-7	1,700	20	200	1
04688	Hexachlorobenzene	118-74-1	1,800	20	200	1
04688	Hexachlorobutadiene	87-68-3	1,700	78	200	1
04688	Hexachlorocyclopentadiene	77-47-4	1,300	200	590	1
04688	Hexachloroethane	67-72-1	1,300	20	200	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	20	200	1
04688	Isophorone	78-59-1	1,600	20	200	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5-MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119963
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,700	20	200	1
04688	2-Methylnaphthalene	91-57-6	1,600	20	200	1
04688	2-Methylphenol	95-48-7	1,600	39	200	1
04688	4-Methylphenol	106-44-5	1,800	39	200	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,600	20	200	1
04688	2-Nitroaniline	88-74-4	1,800	20	200	1
04688	3-Nitroaniline	99-09-2	1,700	39	200	1
04688	4-Nitroaniline	100-01-6	1,500	78	200	1
04688	Nitrobenzene	98-95-3	1,600	20	200	1
04688	2-Nitrophenol	88-75-5	1,700	20	200	1
04688	4-Nitrophenol	100-02-7	1,600	200	590	1
04688	N-Nitrosodimethylamine	62-75-9	1,500	39	200	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,500	20	200	1
04688	N-Nitrosodiphenylamine	86-30-6	1,900	20	200	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,700	20	200	1
04688	Pentachlorophenol	87-86-5	1,000	200	590	1
04688	Phenanthrene	85-01-8	1,800	20	200	1
04688	Phenol	108-95-2	1,700	20	200	1
04688	Pyrene	129-00-0	1,900	20	200	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	20	200	1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	39	200	1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	39	200	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	39	7.8	20	10
10138	Acenaphthylene	208-96-8	35	3.9	20	10
10138	Anthracene	120-12-7	37	3.9	20	10
10138	Benzo(a)anthracene	56-55-3	46	7.8	20	10
10138	Benzo(a)pyrene	50-32-8	52	7.8	20	10
10138	Benzo(b)fluoranthene	205-99-2	110	7.8	20	10
10138	Benzo(g,h,i)perylene	191-24-2	26	7.8	20	10
10138	Benzo(k)fluoranthene	207-08-9	45	7.8	20	10
10138	Butylbenzylphthalate	85-68-7	71	U	71	10
10138	Di-n-butylphthalate	84-74-2	71	U	71	10
10138	Chrysene	218-01-9	66	3.9	20	10
10138	Dibenz(a,h)anthracene	53-70-3	28	7.8	20	10
10138	Diethylphthalate	84-66-2	71	U	71	10
10138	Dimethylphthalate	131-11-3	71	U	71	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	71	U	71	10
10138	Fluoranthene	206-44-0	45	7.8	20	10

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

Sample Description: SL-136-SA5C-SS-0.0-0.5-MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119963
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Fluorene	86-73-7	36	7.8	20	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	26	7.8	20	10
10138	1-Methylnaphthalene	90-12-0	39	7.8	20	10
10138	2-Methylnaphthalene	91-57-6	35	7.8	20	10
10138	Naphthalene	91-20-3	44	7.8	20	10
10138	N-Nitrosodimethylamine	62-75-9	34	7.8	20	10
10138	Di-n-octylphthalate	117-84-0	71	71	210	10
10138	Phenanthrene	85-01-8	42	7.8	20	10
10138	Pyrene	129-00-0	46	7.8	20	10
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	17	J 7.1	21	5
10401	Dalapon	75-99-0	26	U 26	53	5
10401	2,4-DB	94-82-6	12	3.6	10	5
10401	Dicamba	1918-00-9	2.4	U 2.4	7.1	5
10401	Dinoseb	88-85-7	4.7	U 4.7	14	5
10401	2,4-DP (Dichlorprop)	120-36-5	6.0	J 4.7	10	5
10401	MCPA	94-74-6	620	J 450	1,500	5
10401	MCPP (Mecoprop)	93-65-2	710	J 440	1,500	5
10401	2,4,5-T	93-76-5	1.4	0.48	1.0	5
10401	2,4,5-TP	93-72-1	1.0	0.45	1.0	5
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Due to the nature of the sample extract matrix, a dilution was used for the analysis. The reporting limits were raised accordingly.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.21	0.078	0.20	1
01363	Alpha BHC	319-84-6	0.24	0.040	0.20	1
01363	Beta BHC	319-85-7	0.26	0.071	0.20	1
01363	Gamma BHC - Lindane	58-89-9	0.27	0.040	0.20	1
01363	Chlordane	57-74-9	4.2	U 4.2	4.2	1
01363	p,p-DDD	72-54-8	1.9	0.078	0.40	1
01363	p,p-DDE	72-55-9	0.93	0.078	0.40	1
01363	p,p-DDT	50-29-3	1.6	0.078	0.40	1
01363	Delta BHC	319-86-8	0.28	0.042	0.20	1
01363	Dieldrin	60-57-1	0.89	0.078	0.40	1
01363	Endosulfan I	959-98-8	0.26	0.052	0.20	1
01363	Endosulfan II	33213-65-9	1.0	0.078	0.40	1
01363	Endosulfan Sulfate	1031-07-8	0.74	0.078	0.40	1
01363	Endrin	72-20-8	0.81	0.078	0.40	1
01363	Endrin Aldehyde	7421-93-4	0.72	0.078	0.40	1
01363	Endrin Ketone	53494-70-5	2.0	0.078	0.40	1
01363	Heptachlor	76-44-8	0.33	0.071	0.20	1
01363	Heptachlor Epoxide	1024-57-3	0.16	J 0.040	0.20	1
01363	Methoxychlor	72-43-5	4.4	0.40	2.0	1
01363	Mirex	2385-85-5	0.35	J 0.078	0.40	1
01363	Toxaphene	8001-35-2	2.6	U 2.6	7.8	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5-MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119963
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.9	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.9	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.9	1
10225	PCB-1016	12674-11-2	19	0.39	2.0	1
10225	PCB-1221	11104-28-2	0.59 U	0.59	2.0	1
10225	PCB-1232	11141-16-5	0.61 U	0.61	2.0	1
10225	PCB-1242	53469-21-9	0.59 U	0.59	2.0	1
10225	PCB-1248	12672-29-6	0.39 U	0.39	2.0	1
10225	PCB-1254	11097-69-1	120	0.39	2.0	1
10225	PCB-1260	11096-82-5	55	0.39	2.0	1
10225	PCB-1262	37324-23-5	0.39 U	0.39	2.0	1
10225	PCB-1268	11100-14-4	0.39 U	0.39	2.0	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,600	5.79	23.0	1
07914	Boron	7440-42-8	218	1.03	5.76	1
01650	Calcium	7440-70-2	35,100	7.06	23.0	1
01654	Iron	7439-89-6	27,700	5.43	23.0	1
01656	Lithium	7439-93-2	134	0.25	2.3	1
01657	Magnesium	7439-95-4	3,550	2.93	11.5	1
06958	Manganese	7439-96-5	305	0.0899	0.576	1
10145	Phosphorus	7723-14-0	357	0.645	11.5	1
01662	Potassium	7440-09-7	3,260	20.7	57.6	1
01667	Sodium	7440-23-5	1,270	43.0	115	1
07968	Strontium	7440-24-6	157	0.0714	0.576	1
06969	Tin	7440-31-5	485	1.15	11.5	1
06970	Titanium	7440-32-6	1,200	0.876	2.30	2
10146	Zirconium	7440-67-7	117	0.968	5.76	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.866	0.0691	0.230	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.20	0.0691	0.461	2
06126	Barium	7440-39-3	117	0.124	0.461	2
06127	Beryllium	7440-41-7	1.47	0.0184	0.115	2
06128	Cadmium	7440-43-9	1.62	0.0415	0.115	2
06131	Chromium	7440-47-3	32.5	0.138	0.461	2
06132	Cobalt	7440-48-4	57.0	0.0230	0.115	2
06133	Copper	7440-50-8	23.9	0.0760	0.461	2
06135	Lead	7439-92-1	11.9	0.0120	0.230	2
06138	Molybdenum	7439-98-7	13.2	0.0576	0.115	2
06139	Nickel	7440-02-0	25.9	0.115	0.461	2
06141	Selenium	7782-49-2	2.53	0.0461	0.461	2

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

Sample Description: SL-136-SA5C-SS-0.0-0.5-MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119963
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06142	Silver	7440-22-4	12.3	0.0138	0.115	2
06145	Thallium	7440-28-0	0.793	0.0346	0.115	2
06148	Vanadium	7440-62-2	52.4	0.0253	0.115	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.210	0.0033	0.117	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture CDM	n.a.	14.9	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/12/2010 22:11	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 17:00	Joseph M Gambler	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	11/01/2010 07:45	Michele D Hamilton	5
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 01:27	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 07:30	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5-MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119963
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 09:26	Damary Valentin	2
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:18	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 15:49	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 15:49	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 15:49	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 15:49	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:08	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
11625	Moisture CDM	EPA 160.3 modified	2	10309162401A	11/05/2010 09:47	William C Schwebel	1

Sample Description: SL-136-SA5C-SS-0.0-0.5-DUP Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119964
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,100	5.91	23.5	1
07914	Boron	7440-42-8	4.41 J	1.05	5.88	1
01650	Calcium	7440-70-2	19,300	7.20	23.5	1
01654	Iron	7439-89-6	16,600	5.53	23.5	1
01656	Lithium	7439-93-2	16.7	0.26	2.4	1
01657	Magnesium	7439-95-4	3,090	2.98	11.8	1
06958	Manganese	7439-96-5	290	0.0917	0.588	1
10145	Phosphorus	7723-14-0	222	0.658	11.8	1
01662	Potassium	7440-09-7	1,760	21.2	58.8	1
01667	Sodium	7440-23-5	87.5 J	43.8	118	1
07968	Strontium	7440-24-6	39.9	0.0729	0.588	1
06969	Tin	7440-31-5	2.34 J	1.18	11.8	1
06970	Titanium	7440-32-6	1,020	0.447	1.18	1
10146	Zirconium	7440-67-7	5.25 J	0.987	5.88	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.235	0.0698	0.233	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.15	0.0698	0.465	2
06126	Barium	7440-39-3	0.126	0.126	0.465	2
06127	Beryllium	7440-41-7	0.668	0.0186	0.116	2
06128	Cadmium	7440-43-9	0.413	0.0419	0.116	2
06131	Chromium	7440-47-3	22.9	0.140	0.465	2
06132	Cobalt	7440-48-4	5.43	0.0233	0.116	2
06133	Copper	7440-50-8	15.7	0.0768	0.465	2
06135	Lead	7439-92-1	10.7	0.0121	0.233	2
06138	Molybdenum	7439-98-7	0.275	0.0582	0.116	2
06139	Nickel	7440-02-0	17.2	0.116	0.465	2
06141	Selenium	7782-49-2	0.194 J	0.0465	0.465	2
06142	Silver	7440-22-4	0.0544 J	0.0140	0.116	2
06145	Thallium	7440-28-0	0.258	0.0349	0.116	2
06148	Vanadium	7440-62-2	42.1	0.0256	0.116	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0034 U	0.0034	0.117	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.2 J	0.94	1.2	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	10.6 U	10.6	35.3	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.48 J	0.24	1.2	1

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

Sample Description: SL-136-SA5C-SS-0.0-0.5-DUP Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119964
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		ASTM D1498	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	234	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	8.47	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture CDM	n.a.	14.9	0.50	0.50	1
11626	Moisture Duplicate CDM	n.a.	15.4	0.50	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:11	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 15:43	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2

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

Sample Description: SL-136-SA5C-SS-0.0-0.5-DUP Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-136-SA5C-SS-0.0-0.5

LLI Sample # SW 6119964
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL136 SDG#: DE001-02DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 15:43	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 15:43	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 15:43	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:05	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 14:29	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 11:12	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 13:57	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11625	Moisture CDM	EPA 160.3 modified	2	10309162401A	11/05/2010 09:47	William C Schwebel	1
11626	Moisture Duplicate CDM	EPA 160.3 modified	2	10309162401A	11/05/2010 09:47	William C Schwebel	1

Sample Description: SL-137-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-137-SA5C-SS-0.0-0.5

LLI Sample # SW 6119965
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 08:50 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL137 SDG#: DE001-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzo(a)anthracene	56-55-3	24	J 19	190	1
04688	Benzo(b)fluoranthene	205-99-2	25	J 19	190	1
04688	Benzo(g,h,i)perylene	191-24-2	19	J 19	190	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	24	J 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Chrysene	218-01-9	25	J 19	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Fluoranthene	206-44-0	26	J 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1

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

Sample Description: SL-137-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-137-SA5C-SS-0.0-0.5

LLI Sample # SW 6119965
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 08:50 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL137 SDG#: DE001-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	19	U 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	Pyrene	129-00-0	32	J 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1,2-dichlorobenzene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.6	U 7.6	19	10
10138	Acenaphthylene	208-96-8	3.8	U 3.8	19	10
10138	Anthracene	120-12-7	3.8	U 3.8	19	10
10138	Benzo(a)pyrene	50-32-8	7.6	U 7.6	19	10
10138	Benzo(k)fluoranthene	207-08-9	7.6	U 7.6	19	10
10138	Dibenz(a,h)anthracene	53-70-3	7.6	U 7.6	19	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	68	U 68	200	10
10138	Fluorene	86-73-7	7.6	U 7.6	19	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.6	U 7.6	19	10
10138	1-Methylnaphthalene	90-12-0	7.6	U 7.6	19	10
10138	2-Methylnaphthalene	91-57-6	7.6	U 7.6	19	10
10138	Naphthalene	91-20-3	8.2	J 7.6	19	10
10138	N-Nitrosodimethylamine	62-75-9	7.6	U 7.6	19	10
10138	Phenanthrene	85-01-8	8.9	J 7.6	19	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1
10401	Dalapon	75-99-0	5.0	U 5.0	10
10401	2,4-DB	94-82-6	4.5	U 4.5	4.5
10401	Dicamba	1918-00-9	0.45	U 0.45	1.4
10401	Dinoseb	88-85-7	0.91	U 0.91	2.7
10401	2,4-DP (Dichlorprop)	120-36-5	0.91	U 0.91	1.9
10401	MCPA	94-74-6	390	86	280
10401	MCPP (Mecoprop)	93-65-2	85	U 85	280
10401	2,4,5-T	93-76-5	0.093	U 0.093	0.19
10401	2,4,5-TP	93-72-1	0.085	U 0.085	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: SL-137-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-137-SA5C-SS-0.0-0.5

LLI Sample # SW 6119965
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 08:50 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL137 SDG#: DE001-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.075 U	0.075	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.068 U	0.068	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.069 J	0.039	0.19	1
01363	Chlordane	57-74-9	10 U	10	10	1
01363	p,p-DDD	72-54-8	0.075 U	0.075	0.39	1
01363	p,p-DDE	72-55-9	3.4 U	3.4	3.9	10
01363	p,p-DDT	50-29-3	16 U	16	16	10
01363	Delta BHC	319-86-8	0.049 J	0.041	0.19	1
01363	Dieldrin	60-57-1	5.2 U	5.2	5.2	10
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19	1
01363	Endosulfan II	33213-65-9	0.74 U	0.74	0.74	1
01363	Endosulfan Sulfate	1031-07-8	0.075 U	0.075	0.39	1
01363	Endrin	72-20-8	0.075 U	0.075	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.90 U	0.90	0.90	1
01363	Endrin Ketone	53494-70-5	0.075 U	0.075	0.39	1
01363	Heptachlor	76-44-8	0.068 U	0.068	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.82 U	0.82	0.82	1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9	1
01363	Mirex	2385-85-5	0.075 U	0.075	0.39	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.5	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	11 U	11	38	10
10225	Aroclor 5442	12642-23-8	11 U	11	38	10
10225	Aroclor 5460	11126-42-4	55	11	38	10
10225	PCB-1016	12674-11-2	3.8 U	3.8	19	10
10225	PCB-1221	11104-28-2	5.7 U	5.7	19	10
10225	PCB-1232	11141-16-5	5.9 U	5.9	19	10
10225	PCB-1242	53469-21-9	5.7 U	5.7	19	10
10225	PCB-1248	12672-29-6	3.8 U	3.8	19	10
10225	PCB-1254	11097-69-1	150	3.8	19	10
10225	PCB-1260	11096-82-5	51	3.8	19	10
10225	PCB-1262	37324-23-5	3.8 U	3.8	19	10
10225	PCB-1268	11100-14-4	3.8 U	3.8	19	10

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

Sample Description: SL-137-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-137-SA5C-SS-0.0-0.5

LLI Sample # SW 6119965
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 08:50 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL137 SDG#: DE001-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,400	5.44	21.6	1
07914	Boron	7440-42-8	1.93 J	0.963	5.41	1
01650	Calcium	7440-70-2	4,170	6.63	21.6	1
01654	Iron	7439-89-6	25,500	5.10	21.6	1
01656	Lithium	7439-93-2	31.9	0.24	2.2	1
01657	Magnesium	7439-95-4	5,440	2.75	10.8	1
06958	Manganese	7439-96-5	450	0.0844	0.541	1
10145	Phosphorus	7723-14-0	424	0.606	10.8	1
01662	Potassium	7440-09-7	3,810	19.5	54.1	1
01667	Sodium	7440-23-5	99.2 J	40.4	108	1
07968	Strontium	7440-24-6	24.1	0.0671	0.541	1
06969	Tin	7440-31-5	2.62 J	1.08	10.8	1
06970	Titanium	7440-32-6	1,730	2.06	5.41	5
10146	Zirconium	7440-67-7	3.76 J	0.909	5.41	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.197 J	0.0662	0.221	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.64	0.0662	0.441	2
06126	Barium	7440-39-3	135	0.119	0.441	2
06127	Beryllium	7440-41-7	0.757	0.0177	0.110	2
06128	Cadmium	7440-43-9	0.216	0.0397	0.110	2
06131	Chromium	7440-47-3	24.6	0.132	0.441	2
06132	Cobalt	7440-48-4	5.86	0.0221	0.110	2
06133	Copper	7440-50-8	10.9	0.0728	0.441	2
06135	Lead	7439-92-1	8.85	0.0115	0.221	2
06138	Molybdenum	7439-98-7	0.489	0.0552	0.110	2
06139	Nickel	7440-02-0	15.3	0.110	0.441	2
06141	Selenium	7782-49-2	0.138 J	0.0441	0.441	2
06142	Silver	7440-22-4	0.0545 J	0.0132	0.110	2
06145	Thallium	7440-28-0	0.269	0.0331	0.110	2
06148	Vanadium	7440-62-2	44.8	0.0243	0.110	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0032 U	0.0032	0.112	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.2	0.91	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	10.2 U	10.2	34.1	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.71 J	0.23	1.1	1

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

Sample Description: SL-137-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-137-SA5C-SS-0.0-0.5

LLI Sample # SW 6119965
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 08:50 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL137 SDG#: DE001-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		ASTM D1498	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	236	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	7.93	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture CDM	n.a.	12.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/12/2010 23:02	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 20:29	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 08:59	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 01:41	Jamie L Brillhart	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 01:56	Jamie L Brillhart	10
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 07:48	Richard A Shober	10
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1

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

Sample Description: SL-137-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-137-SA5C-SS-0.0-0.5

LLI Sample # SW 6119965
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 08:50 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL137 SDG#: DE001-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 09:33	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:35	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 15:59	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 15:59	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 15:59	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 15:59	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:09	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 15:40	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 12:24	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	2	10304243201A	11/02/2010 14:11	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-112-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SS-0.0-0.5

LLI Sample # SW 6119966
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL112 SDG#: DE001-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	19	U 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	750	U 750	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1

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

Sample Description: SL-112-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SS-0.0-0.5

LLI Sample # SW 6119966
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL112 SDG#: DE001-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	19	U 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:					
	1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.5	U 7.5	19	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	19	10
10138	Anthracene	120-12-7	3.7	U 3.7	19	10
10138	Benzo(a)anthracene	56-55-3	7.5	U 7.5	19	10
10138	Benzo(a)pyrene	50-32-8	7.5	U 7.5	19	10
10138	Benzo(b)fluoranthene	205-99-2	7.5	U 7.5	19	10
10138	Benzo(g,h,i)perylene	191-24-2	7.5	U 7.5	19	10
10138	Benzo(k)fluoranthene	207-08-9	7.5	U 7.5	19	10
10138	Chrysene	218-01-9	3.7	U 3.7	19	10
10138	Dibenz(a,h)anthracene	53-70-3	7.5	U 7.5	19	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	67	U 67	200	10
10138	Fluoranthene	206-44-0	7.5	U 7.5	19	10
10138	Fluorene	86-73-7	7.5	U 7.5	19	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.5	U 7.5	19	10
10138	1-Methylnaphthalene	90-12-0	7.5	U 7.5	19	10
10138	2-Methylnaphthalene	91-57-6	7.5	U 7.5	19	10
10138	Naphthalene	91-20-3	7.6	J 7.5	19	10
10138	N-Nitrosodimethylamine	62-75-9	7.5	U 7.5	19	10
10138	Phenanthrene	85-01-8	7.5	U 7.5	19	10
10138	Pyrene	129-00-0	7.5	U 7.5	19	10
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0	1
10401	Dalapon	75-99-0	4.9	U 4.9	10	1
10401	2,4-DB	94-82-6	6.3	U 6.3	6.3	1
10401	Dicamba	1918-00-9	0.45	U 0.45	1.3	1
10401	Dinoseb	88-85-7	0.89	U 0.89	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.89	U 0.89	1.9	1
10401	MCPA	94-74-6	85	U 85	280	1
10401	MCPP (Mecoprop)	93-65-2	84	U 84	280	1
10401	2,4,5-T	93-76-5	0.092	U 0.092	0.19	1
10401	2,4,5-TP	93-72-1	0.084	U 0.084	0.19	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does					

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

Sample Description: SL-112-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SS-0.0-0.5

LLI Sample # SW 6119966
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL112 SDG#: DE001-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.074 U	0.074	0.19	1
01363	Alpha BHC	319-84-6	0.038 U	0.038	0.19	1
01363	Beta BHC	319-85-7	0.12 J	0.067	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.038 U	0.038	0.19	1
01363	Chlordane	57-74-9	2.1 U	2.1	3.8	1
01363	p,p-DDD	72-54-8	0.074 U	0.074	0.38	1
01363	p,p-DDE	72-55-9	1.9 U	1.9	1.9	1
01363	p,p-DDT	50-29-3	2.0 U	2.0	2.0	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.19	1
01363	Dieldrin	60-57-1	0.074 U	0.074	0.38	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.19	1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.074 U	0.074	0.38	1
01363	Endrin	72-20-8	0.074 U	0.074	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.074 U	0.074	0.38	1
01363	Endrin Ketone	53494-70-5	0.074 U	0.074	0.38	1
01363	Heptachlor	76-44-8	0.067 U	0.067	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.038 U	0.038	0.19	1
01363	Methoxychlor	72-43-5	0.85 U	0.85	1.9	1
01363	Mirex	2385-85-5	0.074 U	0.074	0.38	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.4	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.56 U	0.56	1.9	1
10225	PCB-1232	11141-16-5	0.58 U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.56 U	0.56	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.40 J	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.53 J	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

Sample Description: SL-112-SA5C-SS-0.0-0.5 Grab Soil
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LLI Sample # SW 6119966
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:55 by AKW

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Chantilly VA 20151

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL112 SDG#: DE001-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,000	5.63	22.4	1
07914	Boron	7440-42-8	3.30 J	0.996	5.59	1
01650	Calcium	7440-70-2	2,730	6.86	22.4	1
01654	Iron	7439-89-6	18,600	5.27	22.4	1
01656	Lithium	7439-93-2	17.5	0.25	2.2	1
01657	Magnesium	7439-95-4	3,510	2.84	11.2	1
06958	Manganese	7439-96-5	451	0.0872	0.559	1
10145	Phosphorus	7723-14-0	283	0.626	11.2	1
01662	Potassium	7440-09-7	3,240	20.1	55.9	1
01667	Sodium	7440-23-5	93.2 J	41.7	112	1
07968	Strontium	7440-24-6	24.1	0.0694	0.559	1
06969	Tin	7440-31-5	2.45 J	1.12	11.2	1
06970	Titanium	7440-32-6	1,270	2.13	5.59	5
10146	Zirconium	7440-67-7	3.46 J	0.940	5.59	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.190 J	0.0671	0.224	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.11	0.0671	0.447	2
06126	Barium	7440-39-3	162	0.121	0.447	2
06127	Beryllium	7440-41-7	0.749	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.326	0.0403	0.112	2
06131	Chromium	7440-47-3	26.2	0.134	0.447	2
06132	Cobalt	7440-48-4	8.17	0.0224	0.112	2
06133	Copper	7440-50-8	14.8	0.0738	0.447	2
06135	Lead	7439-92-1	9.46	0.0116	0.224	2
06138	Molybdenum	7439-98-7	0.900	0.0559	0.112	2
06139	Nickel	7440-02-0	17.2	0.112	0.447	2
06141	Selenium	7782-49-2	0.197 J	0.0447	0.447	2
06142	Silver	7440-22-4	0.0353 J	0.0134	0.112	2
06145	Thallium	7440-28-0	0.380	0.0336	0.112	2
06148	Vanadium	7440-62-2	46.0	0.0246	0.112	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	0.91 J	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	10.1 U	10.1	33.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.56 J	0.22	1.1	1

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

Sample Description: SL-112-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SS-0.0-0.5

LLI Sample # SW 6119966
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:55 by AKW

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Submitted: 10/22/2010 08:50

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SL112 SDG#: DE001-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	253	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	6.51	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	10.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/12/2010 23:27	Ryan P Byrne	1
10138	Selected SVOAs in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 21:02	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 09:27	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 02:10	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 08:07	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1

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

Sample Description: SL-112-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
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LLI Sample # SW 6119966
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SL112 SDG#: DE001-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 09:36	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:39	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:08	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:10	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 15:54	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 13:13	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	2	10304243201A	11/02/2010 14:25	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-144-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-144-SA5C-SS-0.0-0.5

LLI Sample # SW 6119967
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL144 SDG#: DE001-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	200	U 200	590	1
04688	Benzidine	92-87-5	1,400	U 1,400	3,900	1
04688	Benzo(a)anthracene	56-55-3	23	J 20	200	1
04688	Benzo(a)pyrene	50-32-8	130	J 20	200	1
04688	Benzo(b)fluoranthene	205-99-2	62	J 20	200	1
04688	Benzo(g,h,i)perylene	191-24-2	64	J 20	200	1
04688	Benzoic acid	65-85-0	200	U 200	590	1
04688	Benzyl alcohol	100-51-6	200	U 200	590	1
04688	4-Bromophenyl-phenylether	101-55-3	20	U 20	200	1
04688	Butylbenzylphthalate	85-68-7	20	U 20	200	1
04688	Di-n-butylphthalate	84-74-2	20	U 20	200	1
04688	Carbazole	86-74-8	20	U 20	200	1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	200	1
04688	4-Chloroaniline	106-47-8	78	U 78	200	1
04688	bis(2-Chloroethoxy)methane	111-91-1	20	U 20	200	1
04688	bis(2-Chloroethyl)ether	111-44-4	20	U 20	200	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	20	U 20	200	1
04688	2-Chloronaphthalene	91-58-7	20	U 20	200	1
04688	2-Chlorophenol	95-57-8	20	U 20	200	1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	200	1
04688	Chrysene	218-01-9	110	J 20	200	1
04688	Dibenz(a,h)anthracene	53-70-3	45	J 20	200	1
04688	Dibenzofuran	132-64-9	20	U 20	200	1
04688	1,2-Dichlorobenzene	95-50-1	20	U 20	200	1
04688	1,3-Dichlorobenzene	541-73-1	20	U 20	200	1
04688	1,4-Dichlorobenzene	106-46-7	20	U 20	200	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390	1
04688	2,4-Dichlorophenol	120-83-2	20	U 20	200	1
04688	Diethylphthalate	84-66-2	20	U 20	200	1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	200	1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	200	1
04688	Dimethylphthalate	131-11-3	20	U 20	200	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	200	U 200	590	1
04688	2,4-Dinitrophenol	51-28-5	780	U 780	2,400	1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	200	1
04688	2,6-Dinitrotoluene	606-20-2	20	U 20	200	1
04688	1,2-Diphenylhydrazine	122-66-7	20	U 20	200	1
04688	Hexachlorobenzene	118-74-1	20	U 20	200	1
04688	Hexachlorobutadiene	87-68-3	78	U 78	200	1
04688	Hexachlorocyclopentadiene	77-47-4	200	U 200	590	1
04688	Hexachloroethane	67-72-1	20	U 20	200	1
04688	Isophorone	78-59-1	20	U 20	200	1
04688	2-Methylphenol	95-48-7	39	U 39	200	1
04688	4-Methylphenol	106-44-5	39	U 39	200	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	20	U 20	200	1
04688	3-Nitroaniline	99-09-2	39	U 39	200	1
04688	4-Nitroaniline	100-01-6	78	U 78	200	1

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

Sample Description: SL-144-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-144-SA5C-SS-0.0-0.5

LLI Sample # SW 6119967
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL144 SDG#: DE001-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Nitrobenzene	98-95-3	20	U 20	200	1
04688	2-Nitrophenol	88-75-5	20	U 20	200	1
04688	4-Nitrophenol	100-02-7	200	U 200	590	1
04688	N-Nitroso-di-n-propylamine	621-64-7	20	U 20	200	1
04688	N-Nitrosodiphenylamine	86-30-6	20	U 20	200	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	20	U 20	200	1
04688	Pentachlorophenol	87-86-5	200	U 200	590	1
04688	Phenol	108-95-2	20	U 20	200	1
04688	Pyrene	129-00-0	24	J 20	200	1
04688	1,2,4-Trichlorobenzene	120-82-1	20	U 20	200	1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	200	1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	200	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAP Standards. The following analytes are accepted based on this allowance:
1,2-dichlorobenzene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.8	U 7.8	20	10
10138	Acenaphthylene	208-96-8	3.9	U 3.9	20	10
10138	Anthracene	120-12-7	3.9	U 3.9	20	10
10138	Benzo(k)fluoranthene	207-08-9	7.8	U 7.8	20	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	71	U 71	210	10
10138	Fluoranthene	206-44-0	10	J 7.8	20	10
10138	Fluorene	86-73-7	7.8	U 7.8	20	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.8	U 7.8	20	10
10138	1-Methylnaphthalene	90-12-0	7.8	U 7.8	20	10
10138	2-Methylnaphthalene	91-57-6	7.8	U 7.8	20	10
10138	Naphthalene	91-20-3	11	J 7.8	20	10
10138	N-Nitrosodimethylamine	62-75-9	7.8	U 7.8	20	10
10138	Phenanthrene	85-01-8	26	7.8	20	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U	1.4	4.2	1
10401	Dalapon	75-99-0	5.2	U	5.2	11	1
10401	2,4-DB	94-82-6	4.5		0.73	2.0	1
10401	Dicamba	1918-00-9	0.47	U	0.47	1.4	1
10401	Dinoseb	88-85-7	0.94	U	0.94	2.8	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.94	U	0.94	2.0	1
10401	MCPA	94-74-6	210	J	89	290	1
10401	MCPP (Mecoprop)	93-65-2	88	U	88	290	1
10401	2,4,5-T	93-76-5	0.096	U	0.096	0.20	1
10401	2,4,5-TP	93-72-1	0.088	U	0.088	0.20	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: SL-144-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-144-SA5C-SS-0.0-0.5

LLI Sample # SW 6119967
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL144 SDG#: DE001-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
statistical limits of 0-36%, the data is reported.						
Perchlorate SW-846 6850 1/2007						
06557	Perchlorate in Soil LC/MS/MS	14797-73-0	2.5 U	2.5	5.9	1
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.078 U	0.078	0.20	1
01363	Alpha BHC	319-84-6	0.085 U	0.085	0.20	1
01363	Beta BHC	319-85-7	0.094 U	0.094	0.20	1
01363	Gamma BHC - Lindane	58-89-9	0.040 U	0.040	0.20	1
01363	Chlordane	57-74-9	6.2 U	6.2	6.2	1
01363	p,p-DDD	72-54-8	1.5 U	1.5	1.5	1
01363	p,p-DDE	72-55-9	0.49 U	0.49	0.49	1
01363	p,p-DDT	50-29-3	1.5 U	1.5	1.5	1
01363	Delta BHC	319-86-8	0.061 J	0.042	0.20	1
01363	Dieldrin	60-57-1	0.39 U	0.39	0.40	1
01363	Endosulfan I	959-98-8	0.052 U	0.052	0.20	1
01363	Endosulfan II	33213-65-9	0.59 U	0.59	0.59	1
01363	Endosulfan Sulfate	1031-07-8	1.6 U	1.6	1.6	1
01363	Endrin	72-20-8	0.078 U	0.078	0.40	1
01363	Endrin Aldehyde	7421-93-4	0.52 U	0.52	0.52	1
01363	Endrin Ketone	53494-70-5	0.078 U	0.078	0.40	1
01363	Heptachlor	76-44-8	0.39	0.071	0.20	1
01363	Heptachlor Epoxide	1024-57-3	0.088 U	0.088	0.20	1
01363	Methoxychlor	72-43-5	1.4 U	1.4	2.0	1
01363	Mirex	2385-85-5	0.42 U	0.42	0.42	1
01363	Toxaphene	8001-35-2	2.6 U	2.6	7.8	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: beta-BHC.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.9	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.9	1
10225	Aroclor 5460	11126-42-4	4.6	1.2	3.9	1
10225	PCB-1016	12674-11-2	0.39 U	0.39	2.0	1
10225	PCB-1221	11104-28-2	0.59 U	0.59	2.0	1
10225	PCB-1232	11141-16-5	0.61 U	0.61	2.0	1
10225	PCB-1242	53469-21-9	0.59 U	0.59	2.0	1
10225	PCB-1248	12672-29-6	0.39 U	0.39	2.0	1
10225	PCB-1254	11097-69-1	7.6	0.39	2.0	1
10225	PCB-1260	11096-82-5	5.5	0.39	2.0	1

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

Sample Description: SL-144-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-144-SA5C-SS-0.0-0.5

LLI Sample # SW 6119967
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL144 SDG#: DE001-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1262	37324-23-5	0.39 U	0.39	2.0	1
10225	PCB-1268	11100-14-4	0.39 U	0.39	2.0	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,700	5.68	22.6	1
07914	Boron	7440-42-8	6.89	1.01	5.65	1
01650	Calcium	7440-70-2	10,600	6.93	22.6	1
01654	Iron	7439-89-6	15,600	5.32	22.6	1
01656	Lithium	7439-93-2	15.4	0.25	2.3	1
01657	Magnesium	7439-95-4	2,960	2.87	11.3	1
06958	Manganese	7439-96-5	315	0.0881	0.565	1
10145	Phosphorus	7723-14-0	172	0.633	11.3	1
01662	Potassium	7440-09-7	1,610	20.3	56.5	1
01667	Sodium	7440-23-5	76.2 J	42.1	113	1
07968	Strontium	7440-24-6	32.1	0.0701	0.565	1
06969	Tin	7440-31-5	2.33 J	1.13	11.3	1
06970	Titanium	7440-32-6	959	0.429	1.13	1
10146	Zirconium	7440-67-7	3.45 J	0.949	5.65	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.316	0.0685	0.228	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.76	0.0685	0.456	2
06126	Barium	7440-39-3	140	0.123	0.456	2
06127	Beryllium	7440-41-7	0.710	0.0183	0.114	2
06128	Cadmium	7440-43-9	0.564	0.0411	0.114	2
06131	Chromium	7440-47-3	27.1	0.137	0.456	2
06132	Cobalt	7440-48-4	10.7	0.0228	0.114	2
06133	Copper	7440-50-8	18.3	0.0753	0.456	2
06135	Lead	7439-92-1	17.6	0.0119	0.228	2
06138	Molybdenum	7439-98-7	0.513	0.0570	0.114	2
06139	Nickel	7440-02-0	19.2	0.114	0.456	2
06141	Selenium	7782-49-2	0.159 J	0.0456	0.456	2
06142	Silver	7440-22-4	0.310	0.0137	0.114	2
06145	Thallium	7440-28-0	0.251	0.0342	0.114	2
06148	Vanadium	7440-62-2	45.7	0.0251	0.114	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0194 J	0.0032	0.113	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.1 J	0.94	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	11.5 J	10.6	35.3	1

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

Sample Description: SL-144-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-144-SA5C-SS-0.0-0.5

LLI Sample # SW 6119967
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL144 SDG#: DE001-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
05892	Hexavalent Chromium by IC	18540-29-9	mg/kg 0.56 J	mg/kg 0.24	mg/kg 1.2	1
ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	mV 236	mV 10.0	mV 10.0	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
SW-846 9045C modified						
00394	pH	n.a.	Std. Units 8.20	Std. Units 0.0100	Std. Units 0.0100	1
Wet Chemistry						
11624	Moisture CDM	n.a.	% 14.9	% 0.50	% 0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/12/2010 23:52	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 21:36	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 09:54	Michele D Hamilton	1
06557	Perchlorate in Soil LC/MS/MS	SW-846 6850 1/2007	1	103060030A	11/03/2010 18:34	Richard A Shober	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 02:25	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 08:26	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1

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

Sample Description: SL-144-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-144-SA5C-SS-0.0-0.5

LLI Sample # SW 6119967
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Project Name: SSFL Area IV Collocated Soil Sampling

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Reported: 12/01/2010 11:27

SL144 SDG#: DE001-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103060030A	11/03/2010 10:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:42	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:11	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:11	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:11	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:11	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:14	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 16:08	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 13:37	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 14:31	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1

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

Sample Description: SL-144-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-144-SA5C-SS-0.0-0.5

LLI Sample # SW 6119967
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL144 SDG#: DE001-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

Sample Description: SL-145-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-145-SA5C-SS-0.0-0.5

LLI Sample # SW 6119968
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:45 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL145 SDG#: DE001-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	220	U 220	650	1
04688	Benidine	92-87-5	1,500	U 1,500	4,300	1
04688	Benzoic acid	65-85-0	220	U 220	650	1
04688	Benzyl alcohol	100-51-6	220	U 220	650	1
04688	4-Bromophenyl-phenylether	101-55-3	22	U 22	220	1
04688	Butylbenzylphthalate	85-68-7	22	U 22	220	1
04688	Di-n-butylphthalate	84-74-2	22	U 22	220	1
04688	Carbazole	86-74-8	22	U 22	220	1
04688	4-Chloro-3-methylphenol	59-50-7	43	U 43	220	1
04688	4-Chloroaniline	106-47-8	86	U 86	220	1
04688	bis(2-Chloroethoxy)methane	111-91-1	22	U 22	220	1
04688	bis(2-Chloroethyl)ether	111-44-4	22	U 22	220	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	22	U 22	220	1
04688	2-Chloronaphthalene	91-58-7	22	U 22	220	1
04688	2-Chlorophenol	95-57-8	22	U 22	220	1
04688	4-Chlorophenyl-phenylether	7005-72-3	43	U 43	220	1
04688	Chrysene	218-01-9	28	J 22	220	1
04688	Dibenzofuran	132-64-9	22	U 22	220	1
04688	1,2-Dichlorobenzene	95-50-1	22	U 22	220	1
04688	1,3-Dichlorobenzene	541-73-1	22	U 22	220	1
04688	1,4-Dichlorobenzene	106-46-7	22	U 22	220	1
04688	3,3'-Dichlorobenzidine	91-94-1	130	U 130	430	1
04688	2,4-Dichlorophenol	120-83-2	22	U 22	220	1
04688	Diethylphthalate	84-66-2	22	U 22	220	1
04688	2,4-Dimethylphenol	105-67-9	43	U 43	220	1
04688	3,5-Dimethylphenol	108-68-9	43	U 43	220	1
04688	Dimethylphthalate	131-11-3	22	U 22	220	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	220	U 220	650	1
04688	2,4-Dinitrophenol	51-28-5	860	U 860	2,600	1
04688	2,4-Dinitrotoluene	121-14-2	43	U 43	220	1
04688	2,6-Dinitrotoluene	606-20-2	22	U 22	220	1
04688	1,2-Diphenylhydrazine	122-66-7	22	U 22	220	1
04688	Fluoranthene	206-44-0	23	J 22	220	1
04688	Hexachlorobenzene	118-74-1	22	U 22	220	1
04688	Hexachlorobutadiene	87-68-3	86	U 86	220	1
04688	Hexachlorocyclopentadiene	77-47-4	220	U 220	650	1
04688	Hexachloroethane	67-72-1	22	U 22	220	1
04688	Isophorone	78-59-1	22	U 22	220	1
04688	2-Methylphenol	95-48-7	43	U 43	220	1
04688	4-Methylphenol	106-44-5	43	U 43	220	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	22	U 22	220	1
04688	3-Nitroaniline	99-09-2	43	U 43	220	1
04688	4-Nitroaniline	100-01-6	86	U 86	220	1
04688	Nitrobenzene	98-95-3	22	U 22	220	1
04688	2-Nitrophenol	88-75-5	22	U 22	220	1
04688	4-Nitrophenol	100-02-7	220	U 220	650	1
04688	N-Nitroso-di-n-propylamine	621-64-7	22	U 22	220	1

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

Sample Description: SL-145-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-145-SA5C-SS-0.0-0.5

LLI Sample # SW 6119968
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:45 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL145 SDG#: DE001-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	N-Nitrosodiphenylamine	86-30-6	22 U	22	220	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	22 U	22	220	1
04688	Pentachlorophenol	87-86-5	220 U	220	650	1
04688	Phenol	108-95-2	22 U	22	220	1
04688	Pyrene	129-00-0	22 J	22	220	1
04688	1,2,4-Trichlorobenzene	120-82-1	22 U	22	220	1
04688	2,4,5-Trichlorophenol	95-95-4	43 U	43	220	1
04688	2,4,6-Trichlorophenol	88-06-2	43 U	43	220	1
The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAP Standards. The following analytes are accepted based on this allowance: 1,2-dichlorobenzene						

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	8.6 U	8.6	22	10
10138	Acenaphthylene	208-96-8	4.3 U	4.3	22	10
10138	Anthracene	120-12-7	4.3 U	4.3	22	10
10138	Benzo(a)anthracene	56-55-3	8.9 J	8.6	22	10
10138	Benzo(a)pyrene	50-32-8	9.3 J	8.6	22	10
10138	Benzo(b)fluoranthene	205-99-2	21 J	8.6	22	10
10138	Benzo(g,h,i)perylene	191-24-2	8.6 U	8.6	22	10
10138	Benzo(k)fluoranthene	207-08-9	8.6 U	8.6	22	10
10138	Dibenz(a,h)anthracene	53-70-3	8.6 U	8.6	22	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	90 J	78	230	10
10138	Fluorene	86-73-7	8.6 U	8.6	22	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	8.6 U	8.6	22	10
10138	1-Methylnaphthalene	90-12-0	8.6 U	8.6	22	10
10138	2-Methylnaphthalene	91-57-6	8.9 J	8.6	22	10
10138	Naphthalene	91-20-3	10 J	8.6	22	10
10138	N-Nitrosodimethylamine	62-75-9	8.6 U	8.6	22	10
10138	Phenanthrene	85-01-8	14 J	8.6	22	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.6	U	1.6	4.7	1
10401	Dalapon	75-99-0	5.7	U	5.7	12	1
10401	2,4-DB	94-82-6	2.4		0.80	2.2	1
10401	Dicamba	1918-00-9	0.52	U	0.52	1.6	1
10401	Dinoseb	88-85-7	1.0	U	1.0	3.1	1
10401	2,4-DP (Dichlorprop)	120-36-5	1.0	U	1.0	2.2	1
10401	MCPA	94-74-6	98	U	98	320	1
10401	MCPP (Mecoprop)	93-65-2	97	U	97	320	1
10401	2,4,5-T	93-76-5	0.11	U	0.11	0.22	1
10401	2,4,5-TP	93-72-1	0.097	U	0.097	0.22	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: SL-145-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-145-SA5C-SS-0.0-0.5

LLI Sample # SW 6119968
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:45 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL145 SDG#: DE001-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.085 U	0.085	0.22	1
01363	Alpha BHC	319-84-6	0.044 U	0.044	0.22	1
01363	Beta BHC	319-85-7	0.078 U	0.078	0.22	1
01363	Gamma BHC - Lindane	58-89-9	0.044 U	0.044	0.22	1
01363	Chlordane	57-74-9	3.8 U	3.8	4.4	1
01363	p,p-DDD	72-54-8	0.085 U	0.085	0.44	1
01363	p,p-DDE	72-55-9	0.085 U	0.085	0.44	1
01363	p,p-DDT	50-29-3	1.9 U	1.9	1.9	1
01363	Delta BHC	319-86-8	0.047 U	0.047	0.22	1
01363	Dieldrin	60-57-1	0.44 U	0.44	0.44	1
01363	Endosulfan I	959-98-8	0.062 U	0.062	0.22	1
01363	Endosulfan II	33213-65-9	0.085 U	0.085	0.44	1
01363	Endosulfan Sulfate	1031-07-8	0.085 U	0.085	0.44	1
01363	Endrin	72-20-8	0.085 U	0.085	0.44	1
01363	Endrin Aldehyde	7421-93-4	0.32 U	0.32	0.44	1
01363	Endrin Ketone	53494-70-5	0.085 U	0.085	0.44	1
01363	Heptachlor	76-44-8	0.078 U	0.078	0.22	1
01363	Heptachlor Epoxide	1024-57-3	0.098 U	0.098	0.22	1
01363	Methoxychlor	72-43-5	0.44 U	0.44	2.2	1
01363	Mirex	2385-85-5	0.19 U	0.19	0.44	1
01363	Toxaphene	8001-35-2	2.8 U	2.8	8.5	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.3 U	1.3	4.3	1
10225	Aroclor 5442	12642-23-8	1.3 U	1.3	4.3	1
10225	Aroclor 5460	11126-42-4	11	1.3	4.3	1
10225	PCB-1016	12674-11-2	0.43 U	0.43	2.2	1
10225	PCB-1221	11104-28-2	0.65 U	0.65	2.2	1
10225	PCB-1232	11141-16-5	0.67 U	0.67	2.2	1
10225	PCB-1242	53469-21-9	0.65 U	0.65	2.2	1
10225	PCB-1248	12672-29-6	0.43 U	0.43	2.2	1
10225	PCB-1254	11097-69-1	12	0.43	2.2	1
10225	PCB-1260	11096-82-5	14	0.43	2.2	1
10225	PCB-1262	37324-23-5	0.43 U	0.43	2.2	1
10225	PCB-1268	11100-14-4	0.43 U	0.43	2.2	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,300	6.45	25.7	1
07914	Boron	7440-42-8	2.29 J	1.14	6.41	1
01650	Calcium	7440-70-2	2,840	7.86	25.7	1
01654	Iron	7439-89-6	17,800	6.04	25.7	1

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

Sample Description: SL-145-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-145-SA5C-SS-0.0-0.5

LLI Sample # SW 6119968
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:45 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL145 SDG#: DE001-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	20.0	0.28	2.6	1
01657	Magnesium	7439-95-4	3,400	3.26	12.8	1
06958	Manganese	7439-96-5	280	0.100	0.641	1
10145	Phosphorus	7723-14-0	227	0.718	12.8	1
01662	Potassium	7440-09-7	2,460	23.1	64.1	1
01667	Sodium	7440-23-5	93.4 J	47.8	128	1
07968	Strontium	7440-24-6	18.8	0.0795	0.641	1
06969	Tin	7440-31-5	2.55 J	1.28	12.8	1
06970	Titanium	7440-32-6	1,120	0.487	1.28	1
10146	Zirconium	7440-67-7	3.46 J	1.08	6.41	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.274	0.0762	0.254	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.89	0.0762	0.508	2
06126	Barium	7440-39-3	130	0.137	0.508	2
06127	Beryllium	7440-41-7	0.728	0.0203	0.127	2
06128	Cadmium	7440-43-9	0.558	0.0457	0.127	2
06131	Chromium	7440-47-3	32.3	0.152	0.508	2
06132	Cobalt	7440-48-4	7.10	0.0254	0.127	2
06133	Copper	7440-50-8	13.6	0.0838	0.508	2
06135	Lead	7439-92-1	20.0	0.0132	0.254	2
06138	Molybdenum	7439-98-7	1.01	0.0635	0.127	2
06139	Nickel	7440-02-0	21.2	0.127	0.508	2
06141	Selenium	7782-49-2	0.148 J	0.0508	0.508	2
06142	Silver	7440-22-4	0.151	0.0152	0.127	2
06145	Thallium	7440-28-0	0.294	0.0381	0.127	2
06148	Vanadium	7440-62-2	50.1	0.0279	0.127	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0146 J	0.0035	0.121	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.6	1.0	1.3	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	11.7 U	11.7	38.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.68 J	0.26	1.3	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	253	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

Sample Description: SL-145-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-145-SA5C-SS-0.0-0.5

LLI Sample # SW 6119968
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:45 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL145 SDG#: DE001-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	7.28	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture CDM	n.a.	22.8	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 00:18	Ryan P Byrne	1
10138	Selected SVOCs in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 22:09	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 10:22	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 02:39	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 08:44	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1

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

Sample Description: SL-145-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-145-SA5C-SS-0.0-0.5

LLI Sample # SW 6119968
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 09:45 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL145 SDG#: DE001-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:46	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:14	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:14	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:14	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:14	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:15	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 16:23	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 14:01	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 14:45	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

Sample Description: DUP-01-SA5C-QC-102010 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-01-SA5C-QC-102010

LLI Sample # SW 6119969
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

DUP01 SDG#: DE001-07FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	210	U 210	620	1
04688	Benizidine	92-87-5	1,400	U 1,400	4,100	1
04688	Benzo(a)pyrene	50-32-8	54	J 21	210	1
04688	Benzo(b)fluoranthene	205-99-2	97	J 21	210	1
04688	Benzo(g,h,i)perylene	191-24-2	130	J 21	210	1
04688	Benzoic acid	65-85-0	210	U 210	620	1
04688	Benzyl alcohol	100-51-6	210	U 210	620	1
04688	4-Bromophenyl-phenylether	101-55-3	21	U 21	210	1
04688	Butylbenzylphthalate	85-68-7	21	U 21	210	1
04688	Di-n-butylphthalate	84-74-2	21	U 21	210	1
04688	Carbazole	86-74-8	21	U 21	210	1
04688	4-Chloro-3-methylphenol	59-50-7	41	U 41	210	1
04688	4-Chloroaniline	106-47-8	82	U 82	210	1
04688	bis(2-Chloroethoxy)methane	111-91-1	21	U 21	210	1
04688	bis(2-Chloroethyl)ether	111-44-4	21	U 21	210	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	21	U 21	210	1
04688	2-Chloronaphthalene	91-58-7	21	U 21	210	1
04688	2-Chlorophenol	95-57-8	21	U 21	210	1
04688	4-Chlorophenyl-phenylether	7005-72-3	41	U 41	210	1
04688	Chrysene	218-01-9	140	J 21	210	1
04688	Dibenz(a,h)anthracene	53-70-3	67	J 21	210	1
04688	Dibenzofuran	132-64-9	21	U 21	210	1
04688	1,2-Dichlorobenzene	95-50-1	21	U 21	210	1
04688	1,3-Dichlorobenzene	541-73-1	21	U 21	210	1
04688	1,4-Dichlorobenzene	106-46-7	21	U 21	210	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	410	1
04688	2,4-Dichlorophenol	120-83-2	21	U 21	210	1
04688	Diethylphthalate	84-66-2	21	U 21	210	1
04688	2,4-Dimethylphenol	105-67-9	41	U 41	210	1
04688	3,5-Dimethylphenol	108-68-9	41	U 41	210	1
04688	Dimethylphthalate	131-11-3	21	U 21	210	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	210	U 210	620	1
04688	2,4-Dinitrophenol	51-28-5	820	U 820	2,500	1
04688	2,4-Dinitrotoluene	121-14-2	41	U 41	210	1
04688	2,6-Dinitrotoluene	606-20-2	21	U 21	210	1
04688	1,2-Diphenylhydrazine	122-66-7	21	U 21	210	1
04688	Hexachlorobenzene	118-74-1	21	U 21	210	1
04688	Hexachlorobutadiene	87-68-3	82	U 82	210	1
04688	Hexachlorocyclopentadiene	77-47-4	210	U 210	620	1
04688	Hexachloroethane	67-72-1	21	U 21	210	1
04688	Isophorone	78-59-1	21	U 21	210	1
04688	2-Methylphenol	95-48-7	41	U 41	210	1
04688	4-Methylphenol	106-44-5	41	U 41	210	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	21	U 21	210	1
04688	3-Nitroaniline	99-09-2	41	U 41	210	1
04688	4-Nitroaniline	100-01-6	82	U 82	210	1
04688	Nitrobenzene	98-95-3	21	U 21	210	1

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

Sample Description: DUP-01-SA5C-QC-102010 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-01-SA5C-QC-102010

LLI Sample # SW 6119969
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

DUP01 SDG#: DE001-07FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	2-Nitrophenol	88-75-5	21	U 21	210	1
04688	4-Nitrophenol	100-02-7	210	U 210	620	1
04688	N-Nitroso-di-n-propylamine	621-64-7	21	U 21	210	1
04688	N-Nitrosodiphenylamine	86-30-6	21	U 21	210	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	88	J 21	210	1
04688	Pentachlorophenol	87-86-5	210	U 210	620	1
04688	Phenol	108-95-2	21	U 21	210	1
04688	Pyrene	129-00-0	37	J 21	210	1
04688	1,2,4-Trichlorobenzene	120-82-1	21	U 21	210	1
04688	2,4,5-Trichlorophenol	95-95-4	41	U 41	210	1
04688	2,4,6-Trichlorophenol	88-06-2	41	U 41	210	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1,2-dichlorobenzene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	8.2	U 8.2	21	10
10138	Acenaphthylene	208-96-8	4.1	U 4.1	21	10
10138	Anthracene	120-12-7	4.1	U 4.1	21	10
10138	Benzo(a)anthracene	56-55-3	8.2	U 8.2	21	10
10138	Benzo(k)fluoranthene	207-08-9	8.2	U 8.2	21	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	74	U 74	220	10
10138	Fluoranthene	206-44-0	8.2	U 8.2	21	10
10138	Fluorene	86-73-7	8.2	U 8.2	21	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	8.2	U 8.2	21	10
10138	1-Methylnaphthalene	90-12-0	8.2	U 8.2	21	10
10138	2-Methylnaphthalene	91-57-6	8.2	U 8.2	21	10
10138	Naphthalene	91-20-3	9.2	J 8.2	21	10
10138	N-Nitrosodimethylamine	62-75-9	8.2	U 8.2	21	10
10138	Phenanthrene	85-01-8	8.2	U 8.2	21	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.5	U	1.5	4.4	1
10401	Dalapon	75-99-0	5.4	U	5.4	11	1
10401	2,4-DB	94-82-6	4.2		0.76	2.1	1
10401	Dicamba	1918-00-9	0.49	U	0.49	1.5	1
10401	Dinoseb	88-85-7	0.98	U	0.98	3.0	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.98	U	0.98	2.1	1
10401	MCPA	94-74-6	120	J	93	310	1
10401	MCPP (Mecoprop)	93-65-2	92	U	92	310	1
10401	2,4,5-T	93-76-5	0.10	U	0.10	0.21	1
10401	2,4,5-TP	93-72-1	0.20	J	0.092	0.21	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: DUP-01-SA5C-QC-102010 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-01-SA5C-QC-102010

LLI Sample # SW 6119969
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

DUP01 SDG#: DE001-07FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.081 U	0.081	0.20	1
01363	Alpha BHC	319-84-6	0.042 U	0.042	0.20	1
01363	Beta BHC	319-85-7	0.13 J	0.074	0.20	1
01363	Gamma BHC - Lindane	58-89-9	0.047 U	0.047	0.20	1
01363	Chlordane	57-74-9	2.5 U	2.5	4.2	1
01363	p,p-DDD	72-54-8	1.3 U	1.3	1.3	1
01363	p,p-DDE	72-55-9	0.38 U	0.38	0.42	1
01363	p,p-DDT	50-29-3	0.58 U	0.58	0.58	1
01363	Delta BHC	319-86-8	0.12 J	0.044	0.20	1
01363	Dieldrin	60-57-1	0.52 U	0.52	0.52	1
01363	Endosulfan I	959-98-8	0.074 U	0.074	0.20	1
01363	Endosulfan II	33213-65-9	0.60 U	0.60	0.60	1
01363	Endosulfan Sulfate	1031-07-8	0.33 U	0.33	0.42	1
01363	Endrin	72-20-8	0.081 U	0.081	0.42	1
01363	Endrin Aldehyde	7421-93-4	1.5 U	1.5	1.5	1
01363	Endrin Ketone	53494-70-5	2.2 U	2.2	2.2	1
01363	Heptachlor	76-44-8	0.074 U	0.074	0.20	1
01363	Heptachlor Epoxide	1024-57-3	0.042 U	0.042	0.20	1
01363	Methoxychlor	72-43-5	0.42 U	0.42	2.0	1
01363	Mirex	2385-85-5	0.48 U	0.48	0.48	1
01363	Toxaphene	8001-35-2	2.7 U	2.7	8.1	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: gamma-BHC.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	4.1	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	4.1	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	4.1	1
10225	PCB-1016	12674-11-2	0.41 U	0.41	2.1	1
10225	PCB-1221	11104-28-2	0.62 U	0.62	2.1	1
10225	PCB-1232	11141-16-5	0.64 U	0.64	2.1	1
10225	PCB-1242	53469-21-9	0.62 U	0.62	2.1	1
10225	PCB-1248	12672-29-6	0.41 U	0.41	2.1	1
10225	PCB-1254	11097-69-1	3.8	0.41	2.1	1
10225	PCB-1260	11096-82-5	4.7	0.41	2.1	1
10225	PCB-1262	37324-23-5	0.41 U	0.41	2.1	1
10225	PCB-1268	11100-14-4	0.41 U	0.41	2.1	1

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

Sample Description: DUP-01-SA5C-QC-102010 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-01-SA5C-QC-102010

LLI Sample # SW 6119969
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

DUP01 SDG#: DE001-07FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,400	6.13	24.4	1
07914	Boron	7440-42-8	2.93 J	1.08	6.09	1
01650	Calcium	7440-70-2	19,600	7.47	24.4	1
01654	Iron	7439-89-6	19,300	5.74	24.4	1
01656	Lithium	7439-93-2	21.1	0.27	2.4	1
01657	Magnesium	7439-95-4	4,040	3.09	12.2	1
06958	Manganese	7439-96-5	339	0.0950	0.609	1
10145	Phosphorus	7723-14-0	303	0.682	12.2	1
01662	Potassium	7440-09-7	2,280	21.9	60.9	1
01667	Sodium	7440-23-5	121 J	45.4	122	1
07968	Strontium	7440-24-6	39.4	0.0755	0.609	1
06969	Tin	7440-31-5	2.69 J	1.22	12.2	1
06970	Titanium	7440-32-6	1,130	2.31	6.09	5
10146	Zirconium	7440-67-7	3.68 J	1.02	6.09	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.197 J	0.0717	0.239	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.79	0.0717	0.478	2
06126	Barium	7440-39-3	118	0.129	0.478	2
06127	Beryllium	7440-41-7	0.673	0.0191	0.119	2
06128	Cadmium	7440-43-9	0.419	0.0430	0.119	2
06131	Chromium	7440-47-3	24.4	0.143	0.478	2
06132	Cobalt	7440-48-4	5.83	0.0239	0.119	2
06133	Copper	7440-50-8	15.5	0.0788	0.478	2
06135	Lead	7439-92-1	9.33	0.0124	0.239	2
06138	Molybdenum	7439-98-7	0.369	0.0597	0.119	2
06139	Nickel	7440-02-0	18.3	0.119	0.478	2
06141	Selenium	7782-49-2	0.121 J	0.0478	0.478	2
06142	Silver	7440-22-4	0.0879 J	0.0143	0.119	2
06145	Thallium	7440-28-0	0.232	0.0358	0.119	2
06148	Vanadium	7440-62-2	44.9	0.0263	0.119	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0217 J	0.0035	0.122	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.4	0.98	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	11.1 U	11.1	36.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.61 J	0.25	1.2	1

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

Sample Description: DUP-01-SA5C-QC-102010 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-01-SA5C-QC-102010

LLI Sample # SW 6119969
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

DUP01 SDG#: DE001-07FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	251	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	8.09	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	18.7	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 00:43	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 22:43	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 10:49	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 02:54	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 09:03	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1

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

Sample Description: DUP-01-SA5C-QC-102010 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-01-SA5C-QC-102010

LLI Sample # SW 6119969
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 10:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

DUP01 SDG#: DE001-07FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 09:39	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:49	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:17	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:17	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:17	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 19:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:17	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:17	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 16:37	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/03/2010 09:08	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	2	10304243201A	11/02/2010 15:07	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-143-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA5C-SS-0.0-0.5

LLI Sample # SW 6119970
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL143 SDG#: DE001-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	19	U 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1

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

Sample Description: SL-143-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA5C-SS-0.0-0.5

LLI Sample # SW 6119970
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:55 by AKW

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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL143 SDG#: DE001-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	19	U 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:					
	1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.6	U 7.6	19	10
10138	Acenaphthylene	208-96-8	3.8	U 3.8	19	10
10138	Anthracene	120-12-7	3.8	U 3.8	19	10
10138	Benzo(a)anthracene	56-55-3	7.6	U 7.6	19	10
10138	Benzo(a)pyrene	50-32-8	7.6	U 7.6	19	10
10138	Benzo(b)fluoranthene	205-99-2	7.6	U 7.6	19	10
10138	Benzo(g,h,i)perylene	191-24-2	7.6	U 7.6	19	10
10138	Benzo(k)fluoranthene	207-08-9	7.6	U 7.6	19	10
10138	Chrysene	218-01-9	5.7	J 3.8	19	10
10138	Dibenz(a,h)anthracene	53-70-3	7.6	U 7.6	19	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	69	U 69	210	10
10138	Fluoranthene	206-44-0	9.5	J 7.6	19	10
10138	Fluorene	86-73-7	7.6	U 7.6	19	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.6	U 7.6	19	10
10138	1-Methylnaphthalene	90-12-0	7.6	U 7.6	19	10
10138	2-Methylnaphthalene	91-57-6	7.6	U 7.6	19	10
10138	Naphthalene	91-20-3	8.6	J 7.6	19	10
10138	N-Nitrosodimethylamine	62-75-9	7.6	U 7.6	19	10
10138	Phenanthrene	85-01-8	7.6	U 7.6	19	10
10138	Pyrene	129-00-0	7.6	U 7.6	19	10
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1	1
10401	Dalapon	75-99-0	5.0	U 5.0	10	1
10401	2,4-DB	94-82-6	3.1	U 3.1	3.1	1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4	1
10401	Dinoseb	88-85-7	0.92	U 0.92	2.8	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.92	U 0.92	1.9	1
10401	MCPA	94-74-6	400	87	290	1
10401	MCPP (Mecoprop)	93-65-2	86	U 86	290	1
10401	2,4,5-T	93-76-5	0.17	U 0.17	0.19	1
10401	2,4,5-TP	93-72-1	0.086	U 0.086	0.19	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does					

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

Sample Description: SL-143-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA5C-SS-0.0-0.5

LLI Sample # SW 6119970
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:55 by AKW

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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL143 SDG#: DE001-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB and 2,4,5-TP.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.076 U	0.076	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.069 U	0.069	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19	1
01363	Chlordane	57-74-9	2.3 U	2.3	3.9	1
01363	p,p-DDD	72-54-8	0.076 U	0.076	0.39	1
01363	p,p-DDE	72-55-9	0.19 U	0.19	0.39	1
01363	p,p-DDT	50-29-3	0.24 U	0.24	0.39	1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19	1
01363	Dieldrin	60-57-1	0.24 U	0.24	0.39	1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19	1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.63 U	0.63	0.63	1
01363	Endrin	72-20-8	0.076 U	0.076	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.16 U	0.16	0.39	1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.39	1
01363	Heptachlor	76-44-8	0.069 U	0.069	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.042 U	0.042	0.19	1
01363	Methoxychlor	72-43-5	1.2 U	1.2	1.9	1
01363	Mirex	2385-85-5	0.44 U	0.44	0.44	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6	1
The TCX and DCB surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts. The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.9 J	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.57 U	0.57	1.9	1
10225	PCB-1232	11141-16-5	0.60 U	0.60	1.9	1
10225	PCB-1242	53469-21-9	0.57 U	0.57	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	2.3	0.38	1.9	1
10225	PCB-1260	11096-82-5	1.0 J	0.38	1.9	1

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Sample Description: SL-143-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA5C-SS-0.0-0.5

LLI Sample # SW 6119970
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:55 by AKW

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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL143 SDG#: DE001-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	22,700	5.49	21.8	1
07914	Boron	7440-42-8	2.90 J	0.972	5.46	1
01650	Calcium	7440-70-2	3,430	6.70	21.8	1
01654	Iron	7439-89-6	21,400	5.14	21.8	1
01656	Lithium	7439-93-2	18.9	0.24	2.2	1
01657	Magnesium	7439-95-4	4,010	2.77	10.9	1
06958	Manganese	7439-96-5	380	0.0852	0.546	1
10145	Phosphorus	7723-14-0	185	0.612	10.9	1
01662	Potassium	7440-09-7	2,810	19.7	54.6	1
01667	Sodium	7440-23-5	131	40.7	109	1
07968	Strontium	7440-24-6	27.8	0.0677	0.546	1
06969	Tin	7440-31-5	2.39 J	1.09	10.9	1
06970	Titanium	7440-32-6	1,350	2.08	5.46	5
10146	Zirconium	7440-67-7	3.49 J	0.917	5.46	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.224 J	0.0681	0.227	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.44	0.0681	0.454	2
06126	Barium	7440-39-3	142	0.123	0.454	2
06127	Beryllium	7440-41-7	0.839	0.0182	0.114	2
06128	Cadmium	7440-43-9	0.226	0.0409	0.114	2
06131	Chromium	7440-47-3	29.7	0.136	0.454	2
06132	Cobalt	7440-48-4	7.71	0.0227	0.114	2
06133	Copper	7440-50-8	13.6	0.0749	0.454	2
06135	Lead	7439-92-1	12.7	0.0118	0.227	2
06138	Molybdenum	7439-98-7	0.491	0.0568	0.114	2
06139	Nickel	7440-02-0	16.9	0.114	0.454	2
06141	Selenium	7782-49-2	0.178 J	0.0454	0.454	2
06142	Silver	7440-22-4	0.0619 J	0.0136	0.114	2
06145	Thallium	7440-28-0	0.323	0.0341	0.114	2
06148	Vanadium	7440-62-2	53.4	0.0250	0.114	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0060 J	0.0031	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	2.3	0.92	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	35.0	10.3	34.4	1

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

Sample Description: SL-143-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA5C-SS-0.0-0.5

LLI Sample # SW 6119970
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL143 SDG#: DE001-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
05892	Hexavalent Chromium by IC	18540-29-9	0.67 J	0.23	1.1	1
ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	264	10.0	10.0	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
SW-846 9045C modified						
00394	pH	n.a.	6.73	0.0100	0.0100	1
Wet Chemistry						
11624	Moisture CDM	n.a.	12.8	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 01:08	Ryan P Byrne	1
10138	Selected SVOAs in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 23:16	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 11:17	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 03:09	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 09:22	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1

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

Sample Description: SL-143-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA5C-SS-0.0-0.5

LLI Sample # SW 6119970
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL143 SDG#: DE001-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 09:42	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:53	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:18	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 16:52	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 14:49	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 15:14	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-141-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-141-SA5C-SS-0.0-0.5

LLI Sample # SW 6119971
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL141 SDG#: DE001-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	19	U 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1

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

Sample Description: SL-141-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-141-SA5C-SS-0.0-0.5

LLI Sample # SW 6119971
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL141 SDG#: DE001-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	19	U 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.6	U 7.6	19	10
10138	Acenaphthylene	208-96-8	3.8	U 3.8	19	10
10138	Anthracene	120-12-7	3.8	U 3.8	19	10
10138	Benzo(a)anthracene	56-55-3	7.6	U 7.6	19	10
10138	Benzo(a)pyrene	50-32-8	7.6	U 7.6	19	10
10138	Benzo(b)fluoranthene	205-99-2	7.6	U 7.6	19	10
10138	Benzo(g,h,i)perylene	191-24-2	7.6	U 7.6	19	10
10138	Benzo(k)fluoranthene	207-08-9	7.6	U 7.6	19	10
10138	Chrysene	218-01-9	3.8	U 3.8	19	10
10138	Dibenz(a,h)anthracene	53-70-3	7.6	U 7.6	19	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	69	U 69	210	10
10138	Fluoranthene	206-44-0	7.6	U 7.6	19	10
10138	Fluorene	86-73-7	7.6	U 7.6	19	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.6	U 7.6	19	10
10138	1-Methylnaphthalene	90-12-0	7.6	U 7.6	19	10
10138	2-Methylnaphthalene	91-57-6	7.6	U 7.6	19	10
10138	Naphthalene	91-20-3	9.0	J 7.6	19	10
10138	N-Nitrosodimethylamine	62-75-9	7.6	U 7.6	19	10
10138	Phenanthrene	85-01-8	7.6	U 7.6	19	10
10138	Pyrene	129-00-0	7.6	U 7.6	19	10
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.1	1
10401	Dalapon	75-99-0	5.0	U 5.0	10	1
10401	2,4-DB	94-82-6	11	U 11	11	1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4	1
10401	Dinoseb	88-85-7	0.92	U 0.92	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.92	U 0.92	1.9	1
10401	MCPA	94-74-6	590	87	290	1
10401	MCP (Mecoprop)	93-65-2	86	U 86	290	1
10401	2,4,5-T	93-76-5	0.094	U 0.094	0.19	1
10401	2,4,5-TP	93-72-1	0.086	U 0.086	0.19	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does					

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

Sample Description: SL-141-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-141-SA5C-SS-0.0-0.5

LLI Sample # SW 6119971
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL141 SDG#: DE001-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.076 U	0.076	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.069 U	0.069	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19	1
01363	Chlordane	57-74-9	3.4 U	3.4	3.9	1
01363	p,p-DDD	72-54-8	0.076 U	0.076	0.39	1
01363	p,p-DDE	72-55-9	0.70 U	0.70	0.70	1
01363	p,p-DDT	50-29-3	0.68 U	0.68	0.68	1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19	1
01363	Dieldrin	60-57-1	0.076 U	0.076	0.39	1
01363	Endosulfan I	959-98-8	0.086 U	0.086	0.19	1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.076 U	0.076	0.39	1
01363	Endrin	72-20-8	0.076 U	0.076	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.076 U	0.076	0.39	1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.39	1
01363	Heptachlor	76-44-8	0.069 U	0.069	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.039 U	0.039	0.19	1
01363	Methoxychlor	72-43-5	0.74 U	0.74	1.9	1
01363	Mirex	2385-85-5	0.076 U	0.076	0.39	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6	1
The TCX and DCB surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts. The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	5.1	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.57 U	0.57	1.9	1
10225	PCB-1232	11141-16-5	0.59 U	0.59	1.9	1
10225	PCB-1242	53469-21-9	0.57 U	0.57	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	5.3	0.38	1.9	1
10225	PCB-1260	11096-82-5	2.0	0.38	1.9	1

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

Sample Description: SL-141-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-141-SA5C-SS-0.0-0.5

LLI Sample # SW 6119971
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL141 SDG#: DE001-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	24,400	5.64	22.4	1
07914	Boron	7440-42-8	3.89 J	0.998	5.61	1
01650	Calcium	7440-70-2	3,530	6.88	22.4	1
01654	Iron	7439-89-6	22,600	5.28	22.4	1
01656	Lithium	7439-93-2	21.5	0.25	2.2	1
01657	Magnesium	7439-95-4	4,360	2.85	11.2	1
06958	Manganese	7439-96-5	361	0.0875	0.561	1
10145	Phosphorus	7723-14-0	233	0.628	11.2	1
01662	Potassium	7440-09-7	3,690	20.2	56.1	1
01667	Sodium	7440-23-5	90.9 J	41.8	112	1
07968	Strontium	7440-24-6	30.7	0.0695	0.561	1
06969	Tin	7440-31-5	2.59 J	1.12	11.2	1
06970	Titanium	7440-32-6	1,440	2.13	5.61	5
10146	Zirconium	7440-67-7	4.52 J	0.942	5.61	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.244	0.0660	0.220	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.06	0.0660	0.440	2
06126	Barium	7440-39-3	155	0.119	0.440	2
06127	Beryllium	7440-41-7	0.828	0.0176	0.110	2
06128	Cadmium	7440-43-9	0.330	0.0396	0.110	2
06131	Chromium	7440-47-3	30.9	0.132	0.440	2
06132	Cobalt	7440-48-4	7.86	0.0220	0.110	2
06133	Copper	7440-50-8	15.1	0.0726	0.440	2
06135	Lead	7439-92-1	14.4	0.0114	0.220	2
06138	Molybdenum	7439-98-7	0.692	0.0550	0.110	2
06139	Nickel	7440-02-0	18.3	0.110	0.440	2
06141	Selenium	7782-49-2	0.179 J	0.0440	0.440	2
06142	Silver	7440-22-4	0.0754 J	0.0132	0.110	2
06145	Thallium	7440-28-0	0.338	0.0330	0.110	2
06148	Vanadium	7440-62-2	55.5	0.0242	0.110	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0157 J	0.0031	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	2.5	0.92	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	45.4	10.3	34.3	1

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

Sample Description: SL-141-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-141-SA5C-SS-0.0-0.5

LLI Sample # SW 6119971
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL141 SDG#: DE001-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
05892	Hexavalent Chromium by IC	18540-29-9	mg/kg 0.47 J	mg/kg 0.23	mg/kg 1.1	1
ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	mV 276	mV 10.0	mV 10.0	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
SW-846 9045C modified						
00394	pH	n.a.	Std. Units 6.58	Std. Units 0.0100	Std. Units 0.0100	1
Wet Chemistry						
11624	Moisture CDM	n.a.	% 12.6	% 0.50	% 0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 01:33	Ryan P Byrne	1
10138	Selected SVOAs in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/16/2010 23:49	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 12:39	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 03:23	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 09:40	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1

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

Sample Description: SL-141-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-141-SA5C-SS-0.0-0.5

LLI Sample # SW 6119971
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2010 14:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL141 SDG#: DE001-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 10:22	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:56	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:24	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:24	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:24	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:24	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:19	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 17:07	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 15:14	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	2	10304243201A	11/02/2010 15:49	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101A	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401A	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-104-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SS-0.0-0.5

LLI Sample # SW 6119972
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL104 SDG#: DE001-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	74	U 74	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	74	U 74	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-104-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SS-0.0-0.5

LLI Sample # SW 6119972
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL104 SDG#: DE001-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1,2-dichlorobenzene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.4	U 7.4	18	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	18	10
10138	Anthracene	120-12-7	3.7	U 3.7	18	10
10138	Benzo(a)anthracene	56-55-3	7.4	U 7.4	18	10
10138	Benzo(a)pyrene	50-32-8	7.4	U 7.4	18	10
10138	Benzo(b)fluoranthene	205-99-2	7.4	U 7.4	18	10
10138	Benzo(g,h,i)perylene	191-24-2	7.4	U 7.4	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.4	U 7.4	18	10
10138	Chrysene	218-01-9	3.7	U 3.7	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.4	U 7.4	18	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	66	U 66	200	10
10138	Fluoranthene	206-44-0	7.4	U 7.4	18	10
10138	Fluorene	86-73-7	7.4	U 7.4	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.4	U 7.4	18	10
10138	1-Methylnaphthalene	90-12-0	7.4	U 7.4	18	10
10138	2-Methylnaphthalene	91-57-6	7.4	U 7.4	18	10
10138	Naphthalene	91-20-3	7.6	J 7.4	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.4	U 7.4	18	10
10138	Phenanthrene	85-01-8	7.4	U 7.4	18	10
10138	Pyrene	129-00-0	7.4	U 7.4	18	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0
10401	Dalapon	75-99-0	4.9	U 4.9	9.9
10401	2,4-DB	94-82-6	17	0.68	1.9
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9
10401	MCPA	94-74-6	84	U 84	280
10401	MCPP (Mecoprop)	93-65-2	83	U 83	280
10401	2,4,5-T	93-76-5	0.091	U 0.091	0.19
10401	2,4,5-TP	93-72-1	0.083	U 0.083	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does

Sample Description: SL-104-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SS-0.0-0.5

LLI Sample # SW 6119972
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL104 SDG#: DE001-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.073 U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.038 U	0.038	0.18	1
01363	Beta BHC	319-85-7	0.10 J	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.058 J	0.038	0.18	1
01363	Chlordane	57-74-9	3.1 U	3.1	3.8	1
01363	p,p-DDD	72-54-8	0.56 U	0.56	0.56	1
01363	p,p-DDE	72-55-9	3.1 U	3.1	3.1	1
01363	p,p-DDT	50-29-3	4.6 U	4.6	4.6	5
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.51 U	0.51	0.51	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.18	1
01363	Endosulfan II	33213-65-9	0.17 U	0.17	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.38	1
01363	Endrin	72-20-8	0.073 U	0.073	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.26 U	0.26	0.38	1
01363	Endrin Ketone	53494-70-5	0.19 U	0.19	0.38	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.13 U	0.13	0.18	1
01363	Methoxychlor	72-43-5	1.3 U	1.3	1.8	1
01363	Mirex	2385-85-5	0.073 U	0.073	0.38	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.8 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	4.3	0.36	1.9	1
10225	PCB-1260	11096-82-5	1.6 J	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,700	5.39	21.4	1

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

Sample Description: SL-104-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SS-0.0-0.5

LLI Sample # SW 6119972
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL104 SDG#: DE001-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	4.85 J	0.954	5.36	1
01650	Calcium	7440-70-2	2,020	6.57	21.4	1
01654	Iron	7439-89-6	18,700	5.05	21.4	1
01656	Lithium	7439-93-2	12.0	0.24	2.1	1
01657	Magnesium	7439-95-4	2,830	2.72	10.7	1
06958	Manganese	7439-96-5	364	0.0836	0.536	1
10145	Phosphorus	7723-14-0	255	0.600	10.7	1
01662	Potassium	7440-09-7	2,650	19.3	53.6	1
01667	Sodium	7440-23-5	106 J	40.0	107	1
07968	Strontium	7440-24-6	21.3	0.0664	0.536	1
06969	Tin	7440-31-5	2.26 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,200	2.04	5.36	5
10146	Zirconium	7440-67-7	3.30 J	0.900	5.36	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.166 J	0.0649	0.216	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.07	0.0649	0.433	2
06126	Barium	7440-39-3	111	0.117	0.433	2
06127	Beryllium	7440-41-7	0.595	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.222	0.0390	0.108	2
06131	Chromium	7440-47-3	18.7	0.130	0.433	2
06132	Cobalt	7440-48-4	6.31	0.0216	0.108	2
06133	Copper	7440-50-8	10.5	0.0714	0.433	2
06135	Lead	7439-92-1	8.16	0.0113	0.216	2
06138	Molybdenum	7439-98-7	0.785	0.0541	0.108	2
06139	Nickel	7440-02-0	11.7	0.108	0.433	2
06141	Selenium	7782-49-2	0.145 J	0.0433	0.433	2
06142	Silver	7440-22-4	0.0358 J	0.0130	0.108	2
06145	Thallium	7440-28-0	0.259	0.0325	0.108	2
06148	Vanadium	7440-62-2	35.6	0.0238	0.108	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	1.01	0.0152	0.529	5
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.2	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	9.9 U	9.9	33.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.73 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	

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

Sample Description: SL-104-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SS-0.0-0.5

LLI Sample # SW 6119972
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL104 SDG#: DE001-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	236	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	6.44	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	9.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 01:59	Ryan P Byrne	1
10138	Selected SVOAs in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/17/2010 00:23	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 13:07	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 03:38	Jamie L Brillhart	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 03:52	Jamie L Brillhart	5
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 09:59	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1

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

Sample Description: SL-104-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SS-0.0-0.5

LLI Sample # SW 6119972
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL104 SDG#: DE001-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 09:48	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 19:59	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:27	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:27	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:27	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:27	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:54	Damary Valentin	5
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201A	10/29/2010 17:21	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201A	11/01/2010 15:38	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 15:56	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201A	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201A	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-098-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SS-0.0-0.5

LLI Sample # SW 6119973
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:25 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL098 SDG#: DE001-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	74	U 74	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	74	U 74	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-098-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SS-0.0-0.5

LLI Sample # SW 6119973
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:25 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL098 SDG#: DE001-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:					
	1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.4	U 7.4	18	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	18	10
10138	Anthracene	120-12-7	3.7	U 3.7	18	10
10138	Benzo(a)anthracene	56-55-3	7.4	U 7.4	18	10
10138	Benzo(a)pyrene	50-32-8	7.4	U 7.4	18	10
10138	Benzo(b)fluoranthene	205-99-2	7.4	U 7.4	18	10
10138	Benzo(g,h,i)perylene	191-24-2	7.4	U 7.4	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.4	U 7.4	18	10
10138	Chrysene	218-01-9	3.7	U 3.7	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.4	U 7.4	18	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	66	U 66	200	10
10138	Fluoranthene	206-44-0	7.4	U 7.4	18	10
10138	Fluorene	86-73-7	7.4	U 7.4	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.4	U 7.4	18	10
10138	1-Methylnaphthalene	90-12-0	7.4	U 7.4	18	10
10138	2-Methylnaphthalene	91-57-6	7.4	U 7.4	18	10
10138	Naphthalene	91-20-3	7.6	J 7.4	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.4	U 7.4	18	10
10138	Phenanthrene	85-01-8	7.4	U 7.4	18	10
10138	Pyrene	129-00-0	7.4	U 7.4	18	10
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0	1
10401	Dalapon	75-99-0	4.9	U 4.9	9.9	1
10401	2,4-DB	94-82-6	1.5	U 1.5	1.9	1
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3	1
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9	1
10401	MCPA	94-74-6	84	U 84	280	1
10401	MCPP (Mecoprop)	93-65-2	83	U 83	280	1
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19	1
10401	2,4,5-TP	93-72-1	0.083	U 0.083	0.19	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does					

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

Sample Description: SL-098-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SS-0.0-0.5

LLI Sample # SW 6119973
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:25 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL098 SDG#: DE001-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.073 U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	1.7 U	1.7	3.7	1
01363	p,p-DDD	72-54-8	0.30 U	0.30	0.37	1
01363	p,p-DDE	72-55-9	0.51 U	0.51	0.51	1
01363	p,p-DDT	50-29-3	1.7 U	1.7	1.7	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.095 U	0.095	0.37	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.18	1
01363	Endosulfan II	33213-65-9	0.073 U	0.073	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.37	1
01363	Endrin	72-20-8	0.073 U	0.073	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.28 U	0.28	0.37	1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.050 U	0.050	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.097 U	0.097	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	3.2	0.36	1.9	1
10225	PCB-1260	11096-82-5	3.2	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

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

Sample Description: SL-098-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SS-0.0-0.5

LLI Sample # SW 6119973
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:25 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL098 SDG#: DE001-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	22,900	5.38	21.4	1
07914	Boron	7440-42-8	1.39 J	0.953	5.35	1
01650	Calcium	7440-70-2	3,730	6.56	21.4	1
01654	Iron	7439-89-6	22,600	5.04	21.4	1
01656	Lithium	7439-93-2	21.4	0.24	2.1	1
01657	Magnesium	7439-95-4	4,180	2.72	10.7	1
06958	Manganese	7439-96-5	228	0.0835	0.535	1
10145	Phosphorus	7723-14-0	160	0.599	10.7	1
01662	Potassium	7440-09-7	2,100	19.3	53.5	1
01667	Sodium	7440-23-5	249	39.9	107	1
07968	Strontium	7440-24-6	31.0	0.0664	0.535	1
06969	Tin	7440-31-5	2.61 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,390	2.03	5.35	5
10146	Zirconium	7440-67-7	3.36 J	0.899	5.35	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.137 J	0.0642	0.214	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.39	0.0642	0.428	2
06126	Barium	7440-39-3	135	0.116	0.428	2
06127	Beryllium	7440-41-7	0.893	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.0936 J	0.0385	0.107	2
06131	Chromium	7440-47-3	26.9	0.128	0.428	2
06132	Cobalt	7440-48-4	5.95	0.0214	0.107	2
06133	Copper	7440-50-8	48.9	0.0706	0.428	2
06135	Lead	7439-92-1	8.48	0.0111	0.214	2
06138	Molybdenum	7439-98-7	0.565	0.0535	0.107	2
06139	Nickel	7440-02-0	13.8	0.107	0.428	2
06141	Selenium	7782-49-2	0.114 J	0.0428	0.428	2
06142	Silver	7440-22-4	0.0310 J	0.0128	0.107	2
06145	Thallium	7440-28-0	0.319	0.0321	0.107	2
06148	Vanadium	7440-62-2	48.6	0.0235	0.107	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0623 J	0.0030	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	7.0	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	9.9 U	9.9	33.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.50 J	0.22	1.1	1

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

Sample Description: SL-098-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SS-0.0-0.5

LLI Sample # SW 6119973
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:25 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL098 SDG#: DE001-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	241	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	7.86	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	9.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 02:24	Ryan P Byrne	1
10138	Selected SVOAs in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/17/2010 00:56	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 13:35	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 04:06	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 10:17	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1

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

Sample Description: SL-098-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SS-0.0-0.5

LLI Sample # SW 6119973
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:25 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL098 SDG#: DE001-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 09:51	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 20:03	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:30	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:30	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:30	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:30	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:21	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201B	10/30/2010 14:48	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201B	11/01/2010 16:02	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 16:10	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201B	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201B	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-099-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SS-0.0-0.5

LLI Sample # SW 6119974
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL099 SDG#: DE001-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-099-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SS-0.0-0.5

LLI Sample # SW 6119974
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL099 SDG#: DE001-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:					
	1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.3	U 7.3	18	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	18	10
10138	Anthracene	120-12-7	3.7	U 3.7	18	10
10138	Benzo(a)anthracene	56-55-3	7.3	U 7.3	18	10
10138	Benzo(a)pyrene	50-32-8	7.3	U 7.3	18	10
10138	Benzo(b)fluoranthene	205-99-2	24	U 7.3	18	10
10138	Benzo(g,h,i)perylene	191-24-2	7.3	U 7.3	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.3	U 7.3	18	10
10138	Chrysene	218-01-9	13	J 3.7	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.3	U 7.3	18	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	66	U 66	200	10
10138	Fluoranthene	206-44-0	7.3	U 7.3	18	10
10138	Fluorene	86-73-7	7.3	U 7.3	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.3	U 7.3	18	10
10138	1-Methylnaphthalene	90-12-0	7.3	U 7.3	18	10
10138	2-Methylnaphthalene	91-57-6	7.3	U 7.3	18	10
10138	Naphthalene	91-20-3	7.6	J 7.3	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.3	U 7.3	18	10
10138	Phenanthrene	85-01-8	7.3	U 7.3	18	10
10138	Pyrene	129-00-0	7.3	U 7.3	18	10
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9	1
10401	Dalapon	75-99-0	4.8	U 4.8	9.9	1
10401	2,4-DB	94-82-6	8.8	U 8.8	8.8	1
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3	1
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9	1
10401	MCPA	94-74-6	83	U 83	270	1
10401	MCPP (Mecoprop)	93-65-2	82	U 82	270	1
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19	1
10401	2,4,5-TP	93-72-1	0.14	J 0.082	0.19	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does					

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

Sample Description: SL-099-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SS-0.0-0.5

LLI Sample # SW 6119974
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL099 SDG#: DE001-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	2.2 U	2.2	3.7	1
01363	p,p-DDD	72-54-8	0.20 U	0.20	0.37	1
01363	p,p-DDE	72-55-9	0.53 U	0.53	0.53	1
01363	p,p-DDT	50-29-3	1.9 U	1.9	1.9	1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.16 U	0.16	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.072 U	0.072	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37	1
01363	Endrin	72-20-8	0.072 U	0.072	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.23 U	0.23	0.37	1
01363	Endrin Ketone	53494-70-5	0.15 U	0.15	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.072 U	0.072	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	3.6 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	4.6	0.36	1.9	1
10225	PCB-1260	11096-82-5	1.3 J	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

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

Sample Description: SL-099-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SS-0.0-0.5

LLI Sample # SW 6119974
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL099 SDG#: DE001-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,000	5.41	21.5	1
07914	Boron	7440-42-8	3.48 J	0.957	5.37	1
01650	Calcium	7440-70-2	2,330	6.59	21.5	1
01654	Iron	7439-89-6	18,000	5.06	21.5	1
01656	Lithium	7439-93-2	12.9	0.24	2.1	1
01657	Magnesium	7439-95-4	2,840	2.73	10.7	1
06958	Manganese	7439-96-5	332	0.0838	0.537	1
10145	Phosphorus	7723-14-0	204	0.602	10.7	1
01662	Potassium	7440-09-7	2,430	19.3	53.7	1
01667	Sodium	7440-23-5	106 J	40.1	107	1
07968	Strontium	7440-24-6	20.5	0.0666	0.537	1
06969	Tin	7440-31-5	2.23 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,200	2.04	5.37	5
10146	Zirconium	7440-67-7	3.72 J	0.903	5.37	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.173 J	0.0651	0.217	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.99	0.0651	0.434	2
06126	Barium	7440-39-3	136	0.117	0.434	2
06127	Beryllium	7440-41-7	0.663	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.240	0.0391	0.109	2
06131	Chromium	7440-47-3	24.0	0.130	0.434	2
06132	Cobalt	7440-48-4	7.52	0.0217	0.109	2
06133	Copper	7440-50-8	30.7	0.0717	0.434	2
06135	Lead	7439-92-1	9.99	0.0113	0.217	2
06138	Molybdenum	7439-98-7	0.829	0.0543	0.109	2
06139	Nickel	7440-02-0	14.8	0.109	0.434	2
06141	Selenium	7782-49-2	0.185 J	0.0434	0.434	2
06142	Silver	7440-22-4	0.0499 J	0.0130	0.109	2
06145	Thallium	7440-28-0	0.316	0.0326	0.109	2
06148	Vanadium	7440-62-2	47.7	0.0239	0.109	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.191	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	3.5	0.88	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	9.9 U	9.9	32.9	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.62 J	0.22	1.1	1

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

Sample Description: SL-099-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SS-0.0-0.5

LLI Sample # SW 6119974
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL099 SDG#: DE001-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	232	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	7.58	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	8.8	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 04:30	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/17/2010 01:30	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 14:02	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 04:21	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 10:36	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1

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

Sample Description: SL-099-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SS-0.0-0.5

LLI Sample # SW 6119974
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL099 SDG#: DE001-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 10:01	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 20:06	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:33	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:33	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:33	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:33	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:23	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201B	10/30/2010 15:32	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201B	11/01/2010 17:39	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	2	10304243201A	11/02/2010 16:30	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201B	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201B	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-103-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SS-0.0-0.5

LLI Sample # SW 6119975
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL103 SDG#: DE001-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-103-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SS-0.0-0.5

LLI Sample # SW 6119975
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL103 SDG#: DE001-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1,2-dichlorobenzene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.3	U 7.3	18	10
10138	Acenaphthylene	208-96-8	3.6	U 3.6	18	10
10138	Anthracene	120-12-7	3.6	U 3.6	18	10
10138	Benzo(a)anthracene	56-55-3	7.3	U 7.3	18	10
10138	Benzo(a)pyrene	50-32-8	7.3	U 7.3	18	10
10138	Benzo(b)fluoranthene	205-99-2	7.3	U 7.3	18	10
10138	Benzo(g,h,i)perylene	191-24-2	7.3	U 7.3	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.3	U 7.3	18	10
10138	Chrysene	218-01-9	3.9	J 3.6	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.3	U 7.3	18	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	66	U 66	200	10
10138	Fluoranthene	206-44-0	7.3	U 7.3	18	10
10138	Fluorene	86-73-7	7.3	U 7.3	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.3	U 7.3	18	10
10138	1-Methylnaphthalene	90-12-0	7.3	U 7.3	18	10
10138	2-Methylnaphthalene	91-57-6	7.3	U 7.3	18	10
10138	Naphthalene	91-20-3	7.7	J 7.3	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.3	U 7.3	18	10
10138	Phenanthrene	85-01-8	7.3	U 7.3	18	10
10138	Pyrene	129-00-0	7.3	U 7.3	18	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9
10401	Dalapon	75-99-0	4.8	U 4.8	9.8
10401	2,4-DB	94-82-6	11	U 11	11
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3
10401	Dinoseb	88-85-7	0.87	U 0.87	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.87	U 0.87	1.9
10401	MCPA	94-74-6	140	U 140	270
10401	MCPP (Mecoprop)	93-65-2	82	U 82	270
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19
10401	2,4,5-TP	93-72-1	0.082	U 0.082	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does

Sample Description: SL-103-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SS-0.0-0.5

LLI Sample # SW 6119975
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL103 SDG#: DE001-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: MCPA and 2,4-DB.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	6.3 U	6.3	6.3	1
01363	p,p-DDD	72-54-8	0.46 U	0.46	0.46	1
01363	p,p-DDE	72-55-9	1.5 U	1.5	1.5	1
01363	p,p-DDT	50-29-3	3.0 U	3.0	3.0	1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.29 U	0.29	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.10 U	0.10	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.22 U	0.22	0.37	1
01363	Endrin	72-20-8	0.072 U	0.072	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.30 U	0.30	0.37	1
01363	Endrin Ketone	53494-70-5	0.11 U	0.11	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.33 U	0.33	0.33	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.072 U	0.072	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.6 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	9.3	0.36	1.9	1
10225	PCB-1260	11096-82-5	2.9	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

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

Sample Description: SL-103-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SS-0.0-0.5

LLI Sample # SW 6119975
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL103 SDG#: DE001-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,300	5.44	21.6	1
07914	Boron	7440-42-8	5.06 J	0.963	5.41	1
01650	Calcium	7440-70-2	2,460	6.63	21.6	1
01654	Iron	7439-89-6	18,200	5.10	21.6	1
01656	Lithium	7439-93-2	14.9	0.24	2.2	1
01657	Magnesium	7439-95-4	3,300	2.75	10.8	1
06958	Manganese	7439-96-5	361	0.0844	0.541	1
10145	Phosphorus	7723-14-0	253	0.606	10.8	1
01662	Potassium	7440-09-7	2,670	19.5	54.1	1
01667	Sodium	7440-23-5	137	40.4	108	1
07968	Strontium	7440-24-6	23.1	0.0671	0.541	1
06969	Tin	7440-31-5	2.32 J	1.08	10.8	1
06970	Titanium	7440-32-6	1,260	2.06	5.41	5
10146	Zirconium	7440-67-7	2.88 J	0.909	5.41	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.204 J	0.0637	0.212	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.08	0.0637	0.424	2
06126	Barium	7440-39-3	152	0.115	0.424	2
06127	Beryllium	7440-41-7	0.673	0.0170	0.106	2
06128	Cadmium	7440-43-9	0.301	0.0382	0.106	2
06131	Chromium	7440-47-3	25.1	0.127	0.424	2
06132	Cobalt	7440-48-4	7.85	0.0212	0.106	2
06133	Copper	7440-50-8	14.3	0.0700	0.424	2
06135	Lead	7439-92-1	10.3	0.0110	0.212	2
06138	Molybdenum	7439-98-7	0.876	0.0531	0.106	2
06139	Nickel	7440-02-0	16.4	0.106	0.424	2
06141	Selenium	7782-49-2	0.180 J	0.0424	0.424	2
06142	Silver	7440-22-4	0.0447 J	0.0127	0.106	2
06145	Thallium	7440-28-0	0.350	0.0318	0.106	2
06148	Vanadium	7440-62-2	47.0	0.0233	0.106	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0600 J	0.0030	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.2	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	9.8 U	9.8	32.8	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.67 J	0.22	1.1	1

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

Sample Description: SL-103-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SS-0.0-0.5

LLI Sample # SW 6119975
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL103 SDG#: DE001-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	260	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	6.24	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	8.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 04:55	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/17/2010 02:03	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 14:30	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 05:49	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 12:09	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1

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

Sample Description: SL-103-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SS-0.0-0.5

LLI Sample # SW 6119975
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL103 SDG#: DE001-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 10:04	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 20:16	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:36	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:36	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:36	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:36	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:24	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201B	10/30/2010 15:47	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201B	11/03/2010 09:32	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 16:37	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201B	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201B	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-100-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SS-0.0-0.5

LLI Sample # SW 6119976
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL100 SDG#: DE001-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-100-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SS-0.0-0.5

LLI Sample # SW 6119976
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL100 SDG#: DE001-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1,2-dichlorobenzene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.3	U 7.3	18	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	18	10
10138	Anthracene	120-12-7	3.7	U 3.7	18	10
10138	Benzo(a)anthracene	56-55-3	7.3	U 7.3	18	10
10138	Benzo(a)pyrene	50-32-8	7.3	U 7.3	18	10
10138	Benzo(b)fluoranthene	205-99-2	9.1	J 7.3	18	10
10138	Benzo(g,h,i)perylene	191-24-2	7.3	U 7.3	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.3	U 7.3	18	10
10138	Chrysene	218-01-9	8.0	J 3.7	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.3	U 7.3	18	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	66	U 66	200	10
10138	Fluoranthene	206-44-0	7.3	U 7.3	18	10
10138	Fluorene	86-73-7	7.3	U 7.3	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.3	U 7.3	18	10
10138	1-Methylnaphthalene	90-12-0	7.3	U 7.3	18	10
10138	2-Methylnaphthalene	91-57-6	7.3	U 7.3	18	10
10138	Naphthalene	91-20-3	8.1	J 7.3	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.3	U 7.3	18	10
10138	Phenanthrene	85-01-8	7.3	U 7.3	18	10
10138	Pyrene	129-00-0	7.3	U 7.3	18	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0
10401	Dalapon	75-99-0	4.8	U 4.8	9.9
10401	2,4-DB	94-82-6	13	U 13	13
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9
10401	MCPA	94-74-6	300	U 84	280
10401	MCPP (Mecoprop)	93-65-2	83	U 83	280
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19
10401	2,4,5-TP	93-72-1	0.083	U 0.083	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does

Sample Description: SL-100-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SS-0.0-0.5

LLI Sample # SW 6119976
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL100 SDG#: DE001-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Perchlorate SW-846 6850 1/2007 ug/kg ug/kg ug/kg						
06557	Perchlorate in Soil LC/MS/MS	14797-73-0	2.3 U	2.3	5.5	1
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.26 U	0.26	0.26	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.12 J	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	6.3 U	6.3	6.3	1
01363	p,p-DDD	72-54-8	0.63 U	0.63	0.63	1
01363	p,p-DDE	72-55-9	1.9 U	1.9	1.9	1
01363	p,p-DDT	50-29-3	3.0 U	3.0	3.0	5
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.35 U	0.35	0.37	1
01363	Endosulfan I	959-98-8	0.089 U	0.089	0.18	1
01363	Endosulfan II	33213-65-9	0.073 U	0.073	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.37	1
01363	Endrin	72-20-8	0.073 U	0.073	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.31 U	0.31	0.37	1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.70 U	0.70	0.70	1
01363	Methoxychlor	72-43-5	0.57 U	0.57	1.8	1
01363	Mirex	2385-85-5	0.42 U	0.42	0.42	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.

Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	9.0	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1

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

Sample Description: SL-100-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SS-0.0-0.5

LLI Sample # SW 6119976
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL100 SDG#: DE001-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	14	0.36	1.9	1
10225	PCB-1260	11096-82-5	3.4	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,100	5.33	21.2	1
07914	Boron	7440-42-8	5.92	0.942	5.29	1
01650	Calcium	7440-70-2	2,810	6.49	21.2	1
01654	Iron	7439-89-6	21,200	4.99	21.2	1
01656	Lithium	7439-93-2	16.9	0.23	2.1	1
01657	Magnesium	7439-95-4	3,880	2.69	10.6	1
06958	Manganese	7439-96-5	402	0.0826	0.529	1
10145	Phosphorus	7723-14-0	301	0.593	10.6	1
01662	Potassium	7440-09-7	3,090	19.1	52.9	1
01667	Sodium	7440-23-5	161	39.5	106	1
07968	Strontium	7440-24-6	26.2	0.0657	0.529	1
06969	Tin	7440-31-5	2.42 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,410	2.01	5.29	5
10146	Zirconium	7440-67-7	3.86 J	0.890	5.29	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.105 J	0.0642	0.214	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.59	0.0642	0.428	2
06126	Barium	7440-39-3	146	0.115	0.428	2
06127	Beryllium	7440-41-7	0.627	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.248	0.0385	0.107	2
06131	Chromium	7440-47-3	21.6	0.128	0.428	2
06132	Cobalt	7440-48-4	7.01	0.0214	0.107	2
06133	Copper	7440-50-8	15.1	0.0706	0.428	2
06135	Lead	7439-92-1	8.81	0.0111	0.214	2
06138	Molybdenum	7439-98-7	0.678	0.0535	0.107	2
06139	Nickel	7440-02-0	14.4	0.107	0.428	2
06141	Selenium	7782-49-2	0.113 J	0.0428	0.428	2
06142	Silver	7440-22-4	0.0485 J	0.0128	0.107	2
06145	Thallium	7440-28-0	0.345	0.0321	0.107	2
06148	Vanadium	7440-62-2	42.5	0.0235	0.107	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0857 J	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.1	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	

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

Sample Description: SL-100-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SS-0.0-0.5

LLI Sample # SW 6119976
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL100 SDG#: DE001-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 314.0						
10147	Perchlorate in Soil	14797-73-0	9.9 U	9.9	33.0	1
SW-846 7199						
05892	Hexavalent Chromium by IC	18540-29-9	0.66 J	0.22	1.1	1
ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	195	10.0	10.0	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
SW-846 9045C modified						
00394	pH	n.a.	6.25	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	9.2	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 05:20	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/17/2010 02:36	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 14:57	Michele D Hamilton	1
06557	Perchlorate in Soil LC/MS/MS	SW-846 6850 1/2007	1	103060030A	11/03/2010 18:40	Richard A Shober	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 06:17	Jamie L Brillhart	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 06:32	Jamie L Brillhart	5
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 12:28	Richard A Shober	1

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

Sample Description: SL-100-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SS-0.0-0.5

LLI Sample # SW 6119976
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:35 by AKW

CDM Federal Programs Corp.
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Suite 210
Chantilly VA 20151

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL100 SDG#: DE001-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103060030A	11/03/2010 10:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 10:07	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 20:20	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:46	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:46	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:46	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:46	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:25	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201B	10/30/2010 16:02	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201B	11/01/2010 18:27	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 16:58	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201B	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201B	10/29/2010 14:00	Nancy J Shoop	1

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

Sample Description: SL-100-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SS-0.0-0.5

LLI Sample # SW 6119976
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL100 SDG#: DE001-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

Sample Description: SL-101-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-101-SA5C-SS-0.0-0.5

LLI Sample # SW 6119977
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL101 SDG#: DE001-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-101-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-101-SA5C-SS-0.0-0.5

LLI Sample # SW 6119977
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL101 SDG#: DE001-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1,2-dichlorobenzene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.3	U 7.3	18	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	18	10
10138	Anthracene	120-12-7	3.7	U 3.7	18	10
10138	Benzo(a)anthracene	56-55-3	7.3	U 7.3	18	10
10138	Benzo(a)pyrene	50-32-8	7.3	U 7.3	18	10
10138	Benzo(b)fluoranthene	205-99-2	7.3	U 7.3	18	10
10138	Benzo(g,h,i)perylene	191-24-2	7.3	U 7.3	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.3	U 7.3	18	10
10138	Chrysene	218-01-9	3.7	U 3.7	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.3	U 7.3	18	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	66	U 66	200	10
10138	Fluoranthene	206-44-0	7.3	U 7.3	18	10
10138	Fluorene	86-73-7	7.3	U 7.3	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.3	U 7.3	18	10
10138	1-Methylnaphthalene	90-12-0	7.3	U 7.3	18	10
10138	2-Methylnaphthalene	91-57-6	7.3	U 7.3	18	10
10138	Naphthalene	91-20-3	7.8	J 7.3	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.3	U 7.3	18	10
10138	Phenanthrene	85-01-8	7.3	U 7.3	18	10
10138	Pyrene	129-00-0	7.3	U 7.3	18	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0
10401	Dalapon	75-99-0	4.8	U 4.8	9.9
10401	2,4-DB	94-82-6	14	U 14	14
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9
10401	MCPA	94-74-6	84	U 84	270
10401	MCPP (Mecoprop)	93-65-2	82	U 82	270
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19
10401	2,4,5-TP	93-72-1	0.082	U 0.082	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does

Sample Description: SL-101-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-101-SA5C-SS-0.0-0.5

LLI Sample # SW 6119977
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 08:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL101 SDG#: DE001-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.073 U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.15 J	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	2.5 U	2.5	3.7	1
01363	p,p-DDD	72-54-8	0.31 U	0.31	0.37	1
01363	p,p-DDE	72-55-9	0.93 U	0.93	0.93	1
01363	p,p-DDT	50-29-3	1.5 U	1.5	1.5	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.16 U	0.16	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.13 U	0.13	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.37	1
01363	Endrin	72-20-8	0.073 U	0.073	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.073 U	0.073	0.37	1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18	1
01363	Methoxychlor	72-43-5	0.79 U	0.79	1.8	1
01363	Mirex	2385-85-5	0.073 U	0.073	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	10	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	3.3	0.36	1.9	1
10225	PCB-1260	11096-82-5	1.1 J	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

Sample Description: SL-101-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
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LLI Sample # SW 6119977
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Chantilly VA 20151

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL101 SDG#: DE001-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,200	5.31	21.1	1
07914	Boron	7440-42-8	3.41 J	0.940	5.28	1
01650	Calcium	7440-70-2	2,610	6.48	21.1	1
01654	Iron	7439-89-6	19,700	4.98	21.1	1
01656	Lithium	7439-93-2	15.3	0.23	2.1	1
01657	Magnesium	7439-95-4	3,490	2.68	10.6	1
06958	Manganese	7439-96-5	402	0.0824	0.528	1
10145	Phosphorus	7723-14-0	214	0.592	10.6	1
01662	Potassium	7440-09-7	2,880	19.0	52.8	1
01667	Sodium	7440-23-5	86.0 J	39.4	106	1
07968	Strontium	7440-24-6	27.6	0.0655	0.528	1
06969	Tin	7440-31-5	2.38 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,320	2.01	5.28	5
10146	Zirconium	7440-67-7	4.19 J	0.888	5.28	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.172 J	0.0646	0.215	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.56	0.0646	0.431	2
06126	Barium	7440-39-3	154	0.116	0.431	2
06127	Beryllium	7440-41-7	0.716	0.0172	0.108	2
06128	Cadmium	7440-43-9	0.349	0.0388	0.108	2
06131	Chromium	7440-47-3	24.7	0.129	0.431	2
06132	Cobalt	7440-48-4	7.71	0.0215	0.108	2
06133	Copper	7440-50-8	14.2	0.0711	0.431	2
06135	Lead	7439-92-1	10.2	0.0112	0.215	2
06138	Molybdenum	7439-98-7	0.879	0.0539	0.108	2
06139	Nickel	7440-02-0	16.5	0.108	0.431	2
06141	Selenium	7782-49-2	0.179 J	0.0431	0.431	2
06142	Silver	7440-22-4	0.0433 J	0.0129	0.108	2
06145	Thallium	7440-28-0	0.358	0.0323	0.108	2
06148	Vanadium	7440-62-2	45.8	0.0237	0.108	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0029 U	0.0029	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	1.4	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	9.9 U	9.9	33.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.60 J	0.22	1.1	1

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

Sample Description: SL-101-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-101-SA5C-SS-0.0-0.5

LLI Sample # SW 6119977
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SL101 SDG#: DE001-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	189	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	6.65	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	9.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 22:34	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/17/2010 03:11	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 15:25	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 06:45	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 12:46	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1

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

Sample Description: SL-101-SA5C-SS-0.0-0.5 Grab Soil
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SL101 SDG#: DE001-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/07/2010 10:10	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 20:23	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:49	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:49	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:49	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:49	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:29	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201B	10/30/2010 16:16	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201B	11/01/2010 18:51	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	2	10304243201A	11/02/2010 17:12	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201B	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201B	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	William C Schwebel	1

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

Sample Description: SL-107-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SS-0.0-0.5

LLI Sample # SW 6119978
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 10:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL107 SDG#: DE001-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-107-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SS-0.0-0.5

LLI Sample # SW 6119978
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 10:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL107 SDG#: DE001-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180	1
	The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1,2-dichlorobenzene					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.2	U 7.2	18	10
10138	Acenaphthylene	208-96-8	3.6	U 3.6	18	10
10138	Anthracene	120-12-7	3.6	U 3.6	18	10
10138	Benzo(a)anthracene	56-55-3	7.2	U 7.2	18	10
10138	Benzo(a)pyrene	50-32-8	7.2	U 7.2	18	10
10138	Benzo(b)fluoranthene	205-99-2	11	J 7.2	18	10
10138	Benzo(g,h,i)perylene	191-24-2	7.2	U 7.2	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.2	U 7.2	18	10
10138	Chrysene	218-01-9	4.9	J 3.6	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.2	U 7.2	18	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	65	U 65	200	10
10138	Fluoranthene	206-44-0	7.2	U 7.2	18	10
10138	Fluorene	86-73-7	7.2	U 7.2	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.2	U 7.2	18	10
10138	1-Methylnaphthalene	90-12-0	7.2	U 7.2	18	10
10138	2-Methylnaphthalene	91-57-6	7.2	U 7.2	18	10
10138	Naphthalene	91-20-3	7.7	J 7.2	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.2	U 7.2	18	10
10138	Phenanthrene	85-01-8	7.2	U 7.2	18	10
10138	Pyrene	129-00-0	7.2	U 7.2	18	10
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9	1
10401	Dalapon	75-99-0	4.8	U 4.8	9.8	1
10401	2,4-DB	94-82-6	2.9	U 2.9	2.9	1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3	1
10401	Dinoseb	88-85-7	0.87	U 0.87	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.87	U 0.87	1.8	1
10401	MCPA	94-74-6	83	U 83	270	1
10401	MCPP (Mecoprop)	93-65-2	81	U 81	270	1
10401	2,4,5-T	93-76-5	0.089	U 0.089	0.18	1
10401	2,4,5-TP	93-72-1	0.081	U 0.081	0.18	1
	The recovery for Dinoseb is outside the QC limits. However, this compound does					

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

Sample Description: SL-107-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SS-0.0-0.5

LLI Sample # SW 6119978
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 10:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL107 SDG#: DE001-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.065 U	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	4.7 U	4.7	4.7	1
01363	p,p-DDD	72-54-8	0.081 U	0.081	0.37	1
01363	p,p-DDE	72-55-9	0.072 U	0.072	0.37	1
01363	p,p-DDT	50-29-3	1.6 U	1.6	1.6	1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.50 U	0.50	0.50	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.072 U	0.072	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37	1
01363	Endrin	72-20-8	0.072 U	0.072	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.072 U	0.072	0.37	1
01363	Endrin Ketone	53494-70-5	0.13 U	0.13	0.37	1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.15 U	0.15	0.18	1
01363	Methoxychlor	72-43-5	1.2 U	1.2	1.8	1
01363	Mirex	2385-85-5	0.24 U	0.24	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.3 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	27	0.36	1.8	1
10225	PCB-1260	11096-82-5	6.9	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

Sample Description: SL-107-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SS-0.0-0.5

LLI Sample # SW 6119978
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 10:05 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL107 SDG#: DE001-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,000	5.35	21.3	1
07914	Boron	7440-42-8	1.62 J	0.947	5.32	1
01650	Calcium	7440-70-2	4,410	6.53	21.3	1
01654	Iron	7439-89-6	16,000	5.01	21.3	1
01656	Lithium	7439-93-2	11.4	0.23	2.1	1
01657	Magnesium	7439-95-4	2,870	2.70	10.6	1
06958	Manganese	7439-96-5	214	0.0830	0.532	1
10145	Phosphorus	7723-14-0	325	0.596	10.6	1
01662	Potassium	7440-09-7	1,800	19.2	53.2	1
01667	Sodium	7440-23-5	202	39.7	106	1
07968	Strontium	7440-24-6	34.5	0.0660	0.532	1
06969	Tin	7440-31-5	1.99 J	1.06	10.6	1
06970	Titanium	7440-32-6	884	0.405	1.06	1
10146	Zirconium	7440-67-7	2.77 J	0.894	5.32	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.139 J	0.0645	0.215	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.37	0.0645	0.430	2
06126	Barium	7440-39-3	103	0.116	0.430	2
06127	Beryllium	7440-41-7	0.543	0.0172	0.108	2
06128	Cadmium	7440-43-9	0.210	0.0387	0.108	2
06131	Chromium	7440-47-3	20.0	0.129	0.430	2
06132	Cobalt	7440-48-4	5.12	0.0215	0.108	2
06133	Copper	7440-50-8	14.5	0.0710	0.430	2
06135	Lead	7439-92-1	6.77	0.0112	0.215	2
06138	Molybdenum	7439-98-7	0.608	0.0538	0.108	2
06139	Nickel	7440-02-0	13.7	0.108	0.430	2
06141	Selenium	7782-49-2	0.137 J	0.0430	0.430	2
06142	Silver	7440-22-4	0.0345 J	0.0129	0.108	2
06145	Thallium	7440-28-0	0.207	0.0323	0.108	2
06148	Vanadium	7440-62-2	48.8	0.0237	0.108	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.958	0.0145	0.504	5
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	Fluoride by IC (solid)	16984-48-8	2.7	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	Perchlorate in Soil	14797-73-0	9.8 U	9.8	32.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	Hexavalent Chromium by IC	18540-29-9	0.53 J	0.22	1.1	1

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

Sample Description: SL-107-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SS-0.0-0.5

LLI Sample # SW 6119978
LLI Group # 1217631
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 10:05 by AKW

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Submitted: 10/22/2010 08:50

Reported: 12/01/2010 11:27

SL107 SDG#: DE001-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	187	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	pH	n.a.	8.27	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture CDM	n.a.	7.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	10301SLD026	11/13/2010 22:59	Ryan P Byrne	1
10138	Selected SV0As in soil by SIM	SW-846 8270C SIM	1	10298SLH026	11/17/2010 03:44	Gregory J Drahovsky	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10298SLH026	10/26/2010 02:00	David V Hershey Jr	1
00381	BNA Soil Sonication	SW-846 3550B	1	10301SLD026	10/28/2010 23:00	Patricia L Foreman	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	103000014A	10/30/2010 15:53	Michele D Hamilton	1
01363	OC Pesticides in Solids	SW-846 8081A	1	103020020A	11/23/2010 06:59	Jamie L Brillhart	1
10225	PCBs & PCTs in Soil	SW-846 8082	1	102990003A	11/04/2010 13:05	Richard A Shober	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103020020A	10/30/2010 11:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	102990003A	10/26/2010 14:00	Wanda F Oswald	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103000014A	10/28/2010 02:00	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
07914	Boron	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
01650	Calcium	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
01654	Iron	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1

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

Sample Description: SL-107-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SS-0.0-0.5

LLI Sample # SW 6119978
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Project Name: SSFL Area IV Collocated Soil Sampling

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Submitted: 10/22/2010 08:50

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SL107 SDG#: DE001-16*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
01657	Magnesium	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
06958	Manganese	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
01662	Potassium	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
01667	Sodium	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
07968	Strontium	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
06969	Tin	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
06970	Titanium	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
10146	Zirconium	SW-846 6010B	1	102995708002	11/05/2010 20:27	John P Hook	1
06124	Antimony	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026003D	11/05/2010 16:52	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026003C	11/05/2010 16:52	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026003B	11/05/2010 16:52	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026003A	11/05/2010 16:52	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711002	10/27/2010 09:55	Damary Valentin	5
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708002	10/26/2010 12:36	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026003	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711002	10/26/2010 13:48	James L Mertz	1
07332	Fluoride by IC (solid)	EPA 300.0	1	10301301201B	10/30/2010 16:31	Ashley M Adams	1
10147	Perchlorate in Soil	EPA 314.0	1	10302302201B	11/01/2010 19:15	William L Hamaker Jr	1
05892	Hexavalent Chromium by IC	SW-846 7199	1	10304243201A	11/02/2010 17:19	William L Hamaker Jr	1
01352	Deionized Water Extraction	EPA 300.0	1	10301301201B	10/28/2010 13:35	Nancy J Shoop	1
10129	DI Prep - Perchlorate soil	EPA 314.0	1	10302302201B	10/29/2010 14:00	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	pH	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	Hexavalent Cr Extraction - IC	SW-846 3060A	1	10304243201A	10/31/2010 05:25	Daniel S Smith	1
11624	Moisture CDM	EPA 160.3 modified	1	10308162402A	11/04/2010 09:33	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: 12/01/10 at 11:27 AM

Group Number: 1217631

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: 10298SLH026	Sample number(s): 6119960-6119963, 6119965-6119978								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	93		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	88		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	92		55-120		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	92		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	92		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	97		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	93		44-138		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	96		66-137		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	99		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	103		84-132		
Chrysene	0.33 U	0.33	1.7	ug/kg	92		79-120		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	92		62-142		
Diethylphthalate	6.0 U	6.0	18	ug/kg	97		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	95		70-130		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	98		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	92		78-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	96		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	92		62-141		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	91		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	81		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	88		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	86		39-148		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	111		55-176		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	92		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	93		56-121		
Batch number: 10301SLD026	Sample number(s): 6119960-6119963, 6119965-6119978								
Acenaphthene	17 U	17.	170	ug/kg	88		76-111		
Acenaphthylene	17 U	17.	170	ug/kg	90		75-122		
Aniline	170 U	170.	500	ug/kg	60		10-107		
Anthracene	17 U	17.	170	ug/kg	95		76-112		
Benzidine	1,200 U	1,200.	3,300	ug/kg	37		15-121		
Benzo(a)anthracene	17 U	17.	170	ug/kg	96		73-112		
Benzo(a)pyrene	17 U	17.	170	ug/kg	93		69-122		
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	89		61-127		
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	91		65-122		
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	96		67-125		
Benzoic acid	170 U	170.	500	ug/kg	93		10-154		
Benzyl alcohol	170 U	170.	500	ug/kg	90		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	99		79-117		
Butylbenzylphthalate	17 U	17.	170	ug/kg	98		75-115		
Di-n-butylphthalate	17 U	17.	170	ug/kg	94		79-112		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Carbazole	17	U	17.	170	ug/kg	93		77-113		
4-Chloro-3-methylphenol	33	U	33.	170	ug/kg	89		74-119		
4-Chloroaniline	67	U	67.	170	ug/kg	32		10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170	ug/kg	86		70-118		
bis(2-Chloroethyl)ether	17	U	17.	170	ug/kg	78		70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170	ug/kg	78		68-131		
2-Chloronaphthalene	17	U	17.	170	ug/kg	98		67-127		
2-Chlorophenol	17	U	17.	170	ug/kg	88		72-112		
4-Chlorophenyl-phenylether	33	U	33.	170	ug/kg	89		79-110		
Chrysene	17	U	17.	170	ug/kg	93		76-113		
Dibenz(a,h)anthracene	17	U	17.	170	ug/kg	93		70-128		
Dibenzofuran	17	U	17.	170	ug/kg	88		79-108		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	78*		79-102		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	77		70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	80		74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	61		38-105		
	U									
2,4-Dichlorophenol	17	U	17.	170	ug/kg	93		75-111		
Diethylphthalate	17	U	17.	170	ug/kg	89		76-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	91		72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	90		70-130		
Dimethylphthalate	17	U	17.	170	ug/kg	89		77-109		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	89		53-110		
	U									
2,4-Dinitrophenol	670		670.	2,000	ug/kg	78		37-120		
	U									
2,4-Dinitrotoluene	33	U	33.	170	ug/kg	88		73-115		
2,6-Dinitrotoluene	17	U	17.	170	ug/kg	89		79-115		
1,2-Diphenylhydrazine	17	U	17.	170	ug/kg	97		77-111		
bis(2-Ethylhexyl)phthalate	22	J	17.	330	ug/kg	95		75-117		
Fluoranthene	17	U	17.	170	ug/kg	92		78-116		
Fluorene	17	U	17.	170	ug/kg	89		75-116		
Hexachlorobenzene	17	U	17.	170	ug/kg	96		78-116		
Hexachlorobutadiene	67	U	67.	170	ug/kg	85		70-112		
Hexachlorocyclopentadiene	170		170.	500	ug/kg	88		46-115		
	U									
Hexachloroethane	17	U	17.	170	ug/kg	77		68-105		
Indeno(1,2,3-cd)pyrene	17	U	17.	170	ug/kg	92		64-119		
Isophorone	17	U	17.	170	ug/kg	82		69-110		
1-Methylnaphthalene	17	U	17.	170	ug/kg	88		74-105		
2-Methylnaphthalene	17	U	17.	170	ug/kg	80		76-105		
2-Methylphenol	33	U	33.	170	ug/kg	86		66-110		
4-Methylphenol	33	U	33.	170	ug/kg	90		66-117		
Naphthalene	17	U	17.	170	ug/kg	84		73-106		
2-Nitroaniline	17	U	17.	170	ug/kg	89		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	81		62-109		
4-Nitroaniline	67	U	67.	170	ug/kg	66		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	83		71-104		
2-Nitrophenol	17	U	17.	170	ug/kg	89		81-114		
4-Nitrophenol	170		170.	500	ug/kg	89		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	77		63-107		
N-Nitrosodimethylamine	33	U	33.	170	ug/kg	79		60-106		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	100		67-141		
Di-n-octylphthalate	17	U	17.	170	ug/kg	100		68-130		
Pentachlorophenol	170		170.	500	ug/kg	88		35-106		
	U									
Phenanthrene	17	U	17.	170	ug/kg	94		77-113		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Phenol	17	U	17.	170	ug/kg	87		58-112		
Pyrene	17	U	17.	170	ug/kg	101		75-115		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	84		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	97		78-111		
Batch number: 103000014A Sample number(s): 6119960-6119963,6119965-6119978										
2,4-D	1.2	U	1.2	3.6	ug/kg	92		40-140		
Dalapon	4.4	U	4.4	9.0	ug/kg	55		24-89		
2,4-DB	0.62	U	0.62	1.7	ug/kg	79		34-138		
Dicamba	0.40	U	0.40	1.2	ug/kg	81		20-164		
Dinoseb	0.80	U	0.80	2.4	ug/kg	9*		10-36		
2,4-DP (Dichlorprop)	0.80	U	0.80	1.7	ug/kg	110		60-141		
MCPA	76	U	76.	250	ug/kg	90		34-113		
MCPP (Mecoprop)	75	U	75.	250	ug/kg	94		29-154		
2,4,5-T	0.082	U	0.082	0.17	ug/kg	82		33-145		
2,4,5-TP	0.075	U	0.075	0.17	ug/kg	86		48-138		
Batch number: 103060030A Sample number(s): 6119967,6119976										
Perchlorate in Soil LC/MS/MS	2.1	U	2.1	5.0	ug/kg	95		70-130		
Batch number: 102990003A Sample number(s): 6119960-6119963,6119965-6119978										
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	87	89	75-125	3	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	97		72-120		
PCB-1221	0.50	U	0.50	1.7	ug/kg					
PCB-1232	0.52	U	0.52	1.7	ug/kg					
PCB-1242	0.50	U	0.50	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.33	U	0.33	1.7	ug/kg	113		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					
Batch number: 103020020A Sample number(s): 6119960-6119963,6119965-6119978										
Aldrin	0.066	U	0.066	0.17	ug/kg	77		44-135		
Alpha BHC	0.034	U	0.034	0.17	ug/kg	85		38-130		
Beta BHC	0.060	U	0.060	0.17	ug/kg	94		56-134		
Gamma BHC - Lindane	0.034	U	0.034	0.17	ug/kg	91		46-127		
Chlordane	0.80	U	0.80	3.4	ug/kg					
p,p-DDD	0.066	U	0.066	0.34	ug/kg	163*		60-137		
p,p-DDE	0.066	U	0.066	0.34	ug/kg	123		59-141		
p,p-DDT	0.066	U	0.066	0.34	ug/kg	154*		54-130		
Delta BHC	0.036	U	0.036	0.17	ug/kg	91		55-144		
Dieldrin	0.066	U	0.066	0.34	ug/kg	127		65-129		
Endosulfan I	0.044	U	0.044	0.17	ug/kg	121		45-123		
Endosulfan II	0.066	U	0.066	0.34	ug/kg	108		63-127		
Endosulfan Sulfate	0.066	U	0.066	0.34	ug/kg	116		72-138		
Endrin	0.066	U	0.066	0.34	ug/kg	135*		62-129		
Endrin Aldehyde	0.066	U	0.066	0.34	ug/kg	100		55-132		
Endrin Ketone	0.066	U	0.066	0.34	ug/kg	127		69-139		
Heptachlor	0.060	U	0.060	0.17	ug/kg	103		43-124		
Heptachlor Epoxide	0.034	U	0.034	0.17	ug/kg	94		65-131		
Methoxychlor	0.34	U	0.34	1.7	ug/kg	160*		59-125		
Mirex	0.066	U	0.066	0.34	ug/kg					
Toxaphene	2.2	U	2.2	6.6	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

<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: 102995708002	Sample number(s): 6119960-6119978								
Aluminum	4.93 U	4.93	19.6	mg/kg	101		61-110		
Boron	0.873 U	0.873	4.90	mg/kg	88		78-110		
Calcium	6.10 J	6.01	19.6	mg/kg	95		88-110		
Iron	4.62 U	4.62	19.6	mg/kg	101		61-110		
Lithium	0.22 U	0.22	2.0	mg/kg	98		80-120		
Magnesium	2.49 U	2.49	9.80	mg/kg	96		82-110		
Manganese	0.0765 U	0.0765	0.490	mg/kg	98		81-119		
Phosphorus	1.59 J	0.549	9.80	mg/kg	103		80-120		
Potassium	17.6 U	17.6	49.0	mg/kg	96		78-110		
Sodium	36.6 U	36.6	98.0	mg/kg	97		87-110		
Strontium	0.0608 U	0.0608	0.490	mg/kg	102		79-121		
Tin	1.13 J	0.980	9.80	mg/kg	94		90-114		
Titanium	0.373 U	0.373	0.980	mg/kg	93		85-115		
Zirconium	0.824 U	0.824	4.90	mg/kg	101		80-120		
Batch number: 102995711002	Sample number(s): 6119960-6119978								
Mercury	0.0028 U	0.0028	0.0969	mg/kg	92		88-123		
Batch number: 103001026003A	Sample number(s): 6119960-6119978								
Antimony	0.0600 U	0.0600	0.200	mg/kg	103		11-208		
Arsenic	0.0600 U	0.0600	0.400	mg/kg	102		80-120		
Beryllium	0.0160 U	0.0160	0.100	mg/kg	102		82-118		
Cadmium	0.0360 U	0.0360	0.100	mg/kg	101		82-118		
Chromium	0.120 U	0.120	0.400	mg/kg	111		80-120		
Cobalt	0.0200 U	0.0200	0.100	mg/kg	95		82-118		
Copper	0.0660 U	0.0660	0.400	mg/kg	107		80-120		
Lead	0.0104 U	0.0104	0.200	mg/kg	108		80-120		
Nickel	0.100 U	0.100	0.400	mg/kg	105		80-120		
Silver	0.0120 U	0.0120	0.100	mg/kg	103		66-134		
Thallium	0.0300 U	0.0300	0.100	mg/kg	104		81-119		
Vanadium	0.0220 U	0.0220	0.100	mg/kg	98		90-110		
Batch number: 103001026003B	Sample number(s): 6119960-6119978								
Selenium	0.0424 J	0.0400	0.400	mg/kg	106		79-122		
Batch number: 103001026003C	Sample number(s): 6119960-6119978								
Molybdenum	0.0500 U	0.0500	0.100	mg/kg	108		78-122		
Batch number: 103001026003D	Sample number(s): 6119960-6119978								
Barium	0.108 U	0.108	0.400	mg/kg	107		79-121		
Batch number: 10301301201A	Sample number(s): 6119960-6119962, 6119964-6119972								
Fluoride by IC (solid)	0.80 U	0.80	1.0	mg/kg	108		90-110		
Batch number: 10301301201B	Sample number(s): 6119973-6119978								
Fluoride by IC (solid)	0.80 U	0.80	1.0	mg/kg	108		90-110		
Batch number: 10302302201A	Sample number(s): 6119960-6119962, 6119964-6119972								
Perchlorate in Soil	9.0 U	9.0	30.0	ug/kg	97		85-115		
Batch number: 10302302201B	Sample number(s): 6119973-6119978								
Perchlorate in Soil	9.0 U	9.0	30.0	ug/kg	97		85-115		
Batch number: 10304243201A	Sample number(s): 6119960-6119962, 6119964-6119978								
Hexavalent Chromium by IC	0.23 J	0.20	1.0	mg/kg	97		80-120		
Batch number: 10298039401A	Sample number(s): 6119960-6119961, 6119964-6119971								

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

<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>
pH					99		95-105		
Batch number: 10298039401B pH	Sample number(s): 6119972-6119978				99		95-105		
Batch number: 10298182101A Oxidation Reduction Potential	Sample number(s): 6119960-6119961, 6119964-6119971				98		98-102		
Batch number: 10298182101B Oxidation Reduction Potential	Sample number(s): 6119972-6119978				98		98-102		
Batch number: 10308162402A Moisture CDM	Sample number(s): 6119960, 6119965-6119978				100		80-120		
Batch number: 10309162401A Moisture CDM	Sample number(s): 6119961-6119964				100		80-120		
Moisture CDM					100		80-120		
Moisture Duplicate CDM					100		80-120		

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 10298SLH026	Sample number(s): 6119960-6119963, 6119965-6119978 UNSPK: 6119961								
Acenaphthene	93	100	63-105	7	30				
Acenaphthylene	87	90	55-126	4	30				
Anthracene	90	94	46-136	4	30				
Benzo(a)anthracene	90	91	39-144	0	30				
Benzo(a)pyrene	79	69	34-156	7	30				
Benzo(b)fluoranthene	56	44	43-155	4	30				
Benzo(g,h,i)perylene	16*	9*	33-141	10	30				
Benzo(k)fluoranthene	119	115	42-144	4	30				
Butylbenzylphthalate	0*	0*	73-140	0	30				
Di-n-butylphthalate	0*	0*	78-160	0	30				
Chrysene	58	16*	29-156	23	30				
Dibenz(a,h)anthracene	39*	40*	41-130	1	30				
Diethylphthalate	0*	0*	87-131	0	30				
Dimethylphthalate	0*	0*	74-118	0	30				
Bis(2-Ethylhexyl)phthalate	183*	0*	39-167	200*	30				
Fluoranthene	114	114	26-166	0	30				
Fluorene	91	93	45-121	2	30				
Indeno(1,2,3-cd)pyrene	40	40	21-143	0	30				
1-Methylnaphthalene	98	99	72-123	1	30				
2-Methylnaphthalene	86	88	28-121	3	30				
Naphthalene	87	88	61-102	1	30				
N-Nitrosodimethylamine	89	87	48-113	2	30				
Di-n-octylphthalate	0*	0*	40-192	0	30				
Phenanthrene	98	106	12-165	8	30				
Pyrene	73	65	15-153	6	30				

Batch number: 10301SLD026 Sample number(s): 6119960-6119963, 6119965-6119978 UNSPK: 6119961

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

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
Acenaphthene	95	88	75-115	8	30				
Acenaphthylene	95	90	49-126	6	30				
Aniline	60	66	14-114	10	30				
Anthracene	97	92	75-115	5	30				
Benzidine	0*	39	35-141	200*	30				
Benzo(a)anthracene	98	97	65-122	1	30				
Benzo(a)pyrene	92	87	57-126	5	30				
Benzo(b)fluoranthene	89	80	59-125	11	30				
Benzo(g,h,i)perylene	100	91	59-127	10	30				
Benzo(k)fluoranthene	94	86	56-132	9	30				
Benzoic acid	91	77	10-173	17	30				
Benzyl alcohol	90	92	55-123	2	30				
4-Bromophenyl-phenylether	102	99	67-129	3	30				
Butylbenzylphthalate	99	99	73-134	0	30				
Di-n-butylphthalate	95	94	67-123	1	30				
Carbazole	92	93	64-120	1	30				
4-Chloro-3-methylphenol	88	86	53-130	2	30				
4-Chloroaniline	43	63	23-95	36*	30				
bis(2-Chloroethoxy)methane	89	83	54-117	7	30				
bis(2-Chloroethyl)ether	85	78	60-116	9	30				
bis(2-Chloroisopropyl)ether	84	76	55-142	10	30				
2-Chloronaphthalene	95	106	50-141	10	30				
2-Chlorophenol	92	89	73-121	3	30				
4-Chlorophenyl-phenylether	94	89	64-119	5	30				
Chrysene	96	92	62-128	4	30				
Dibenz(a,h)anthracene	103	91	65-125	13	30				
Dibenzofuran	92	91	71-112	2	30				
1,2-Dichlorobenzene	86	76	66-108	13	30				
1,3-Dichlorobenzene	85	72	63-109	16	30				
1,4-Dichlorobenzene	84	74	53-113	12	30				
3,3'-Dichlorobenzidine	76	93	25-123	21	30				
2,4-Dichlorophenol	92	90	78-117	3	30				
Diethylphthalate	92	87	66-118	5	30				
2,4-Dimethylphenol	93	93	56-130	0	30				
3,5-Dimethylphenol	91	92	70-130	1	30				
Dimethylphthalate	94	90	64-118	5	30				
4,6-Dinitro-2-methylphenol	57	46	10-148	23	30				
2,4-Dinitrophenol	48	37	20-143	25	30				
2,4-Dinitrotoluene	87	82	57-114	6	30				
2,6-Dinitrotoluene	95	90	69-123	5	30				
1,2-Diphenylhydrazine	100	95	71-129	5	30				
bis(2-Ethylhexyl)phthalate	95	96	63-122	1	30				
Fluoranthene	93	89	59-122	5	30				
Fluorene	90	87	60-125	3	30				
Hexachlorobenzene	97	92	61-111	6	30				
Hexachlorobutadiene	91	86	62-120	6	30				
Hexachlorocyclopentadiene	46	32	10-153	34*	30				
Hexachloroethane	82	68	57-109	18	30				
Indeno(1,2,3-cd)pyrene	97	90	61-126	8	30				
Isophorone	87	84	51-118	3	30				
1-Methylnaphthalene	90	87	73-112	4	30				
2-Methylnaphthalene	85	79	76-114	8	30				
2-Methylphenol	89	84	47-142	6	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
4-Methylphenol	90	93	55-126	3	30				
Naphthalene	91	84	72-116	9	30				
2-Nitroaniline	97	94	67-125	3	30				
3-Nitroaniline	87	87	59-122	0	30				
4-Nitroaniline	82	79	52-112	5	30				
Nitrobenzene	91	82	51-114	11	30				
2-Nitrophenol	92	85	74-115	7	30				
4-Nitrophenol	86	83	39-133	4	30				
N-Nitroso-di-n-propylamine	80	76	60-116	5	30				
N-Nitrosodimethylamine	85	78	47-116	8	30				
N-Nitrosodiphenylamine	102	99	86-145	3	30				
Di-n-octylphthalate	96	88	56-126	9	30				
Pentachlorophenol	41	53	17-149	25	30				
Phenanthrene	95	90	65-125	6	30				
Phenol	88	85	58-126	3	30				
Pyrene	94	95	51-151	1	30				
1,2,4-Trichlorobenzene	91	84	72-115	8	30				
2,4,5-Trichlorophenol	97	93	34-139	5	30				
2,4,6-Trichlorophenol	101	96	49-140	5	30				
Batch number: 103000014A	Sample number(s): 6119960-6119963,6119965-6119978 UNSPK: 6119961								
2,4-D	191*	169*	28-161	12	35				
Dalapon	0*	0*	12-86	0	50				
2,4-DB	122	119	20-170	2	50				
Dicamba	0*	0*	33-120	0	50				
Dinoseb	0*	0*	1-44	0	35				
2,4-DP (Dichlorprop)	59	61	55-141	2	50				
MCPA	93	63	31-184	39	50				
MCPP (Mecoprop)	75	72	16-174	4	50				
2,4,5-T	143*	141*	25-132	2	35				
2,4,5-TP	102	102	10-183	0	35				
Batch number: 103060030A	Sample number(s): 6119967,6119976 UNSPK: P118541								
Perchlorate in Soil LC/MS/MS	104	100	70-130	4	30				
Batch number: 102990003A	Sample number(s): 6119960-6119963,6119965-6119978 UNSPK: 6119961								
PCB-1016	89	99	29-146	10	50				
PCB-1260	105	252*	39-149	71*	50				
Batch number: 103020020A	Sample number(s): 6119960-6119963,6119965-6119978 UNSPK: 6119961								
Aldrin	58	58	16-126	0	50				
Alpha BHC	58	61	10-129	5	50				
Beta BHC	40	46	14-147	10	50				
Gamma BHC - Lindane	88	70	10-140	23	50				
p,p-DDD	176*	242*	16-163	31	50				
p,p-DDE	113	127	18-161	12	50				
p,p-DDT	162	212*	10-176	27	50				
Delta BHC	52	58	23-140	9	50				
Dieldrin	105	115	19-154	10	50				
Endosulfan I	85	67	16-137	24	50				
Endosulfan II	111	138	28-154	22	50				
Endosulfan Sulfate	97	100	21-160	3	50				
Endrin	86	105	11-149	19	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

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
Endrin Aldehyde	116	98	10-148	17	35				
Endrin Ketone	110	269*	22-165	84*	50				
Heptachlor	79	85	13-126	7	50				
Heptachlor Epoxide	52	45	13-157	13	50				
Methoxychlor	109	107	32-147	2	50				
Batch number: 102995708002 Sample number(s): 6119960-6119978 UNSPK: 6119961 BKG: 6119961									
Aluminum	1249 (2)	1286 (2)	75-125	0	20	10,700	10,300	4	20
Boron	95	94	84-115	2	20	1.73 J	3.76 J	74* (1)	20
Calcium	-1117 (2)	-2091 (2)	75-125	12	20	38,100	16,500	79*	20
Iron	655 (2)	9746 (2)	75-125	47*	20	14,000	14,100	1	20
Lithium	99	101	82-114	1	20	14.6	14.2	3	20
Magnesium	186 (2)	152 (2)	75-125	2	20	2,720	2,630	3	20
Manganese	140*	221*	75-125	16	20	151	247	48*	20
Phosphorus	124	110	75-125	5	20	196	189	4	20
Potassium	127*	126*	75-125	1	20	1,540	1,500	3	20
Sodium	102	102	75-125	0	20	78.9 J	74.4 J	6 (1)	20
Strontium	92	91	75-115	1	20	44.3	34.0	26*	20
Tin	85	105	80-110	20	20	1.86 J	1.99 J	7 (1)	20
Titanium	265 (2)	302 (2)	75-125	3	20	727	866	17	20
Zirconium	98	98	75-125	1	20	3.07 J	4.47 J	37* (1)	20
Batch number: 102995711002 Sample number(s): 6119960-6119978 UNSPK: 6119961 BKG: 6119961									
Mercury	106	106	65-135	1	20	0.0035 J	0.0029 U	200* (1)	20
Batch number: 103001026003A Sample number(s): 6119960-6119978 UNSPK: 6119961 BKG: 6119961									
Antimony	45*	47*	75-125	6	20	0.182 J	0.200	9 (1)	20
Arsenic	162*	111	75-125	16	20	3.09	3.53	13	20
Beryllium	108	93	75-125	8	20	0.524	0.569	8	20
Cadmium	109	97	75-125	7	20	0.423	0.352	18 (1)	20
Chromium	132*	97	75-125	11	20	18.1	19.5	8	20
Cobalt	102	89	75-125	10	20	4.64	4.62	0	20
Copper	120	80	75-125	17	20	12.5	13.3	6	20
Lead	80	51*	75-125	8	20	8.66	9.13	5	20
Nickel	117	101	75-125	6	20	12.2	14.7	18	20
Silver	114	107	75-125	5	20	0.0472 J	0.0463 J	2 (1)	20
Thallium	136*	126*	75-125	4	20	0.181	0.220	19 (1)	20
Vanadium	283*	122	75-125	29*	20	32.6	35.8	10	20
Batch number: 103001026003B Sample number(s): 6119960-6119978 UNSPK: 6119961 BKG: 6119961									
Selenium	107	99	75-125	5	20	0.204 J	0.165 J	21* (1)	20
Batch number: 103001026003C Sample number(s): 6119960-6119978 UNSPK: 6119961 BKG: 6119961									
Molybdenum	117	110	75-125	4	20	0.419	0.234	57* (1)	20
Batch number: 103001026003D Sample number(s): 6119960-6119978 UNSPK: 6119961 BKG: 6119961									
Barium	593 (2)	71 (2)	75-125	40*	20	92.8	104	11	20
Batch number: 10301301201A Sample number(s): 6119960-6119962,6119964-6119972 UNSPK: 6119961 BKG: 6119961									
Fluoride by IC (solid)	92		80-120			0.85 J	0.99 J	15 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

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: 10301301201B Fluoride by IC (solid)	Sample number(s): 6119973-6119978 74*		80-120			UNSPK: 6119973 6.4	BKG: 6119973 8.3	26*	20
Batch number: 10302302201A Perchlorate in Soil	Sample number(s): 6119960-6119962, 6119964-6119972 108		80-120			UNSPK: 6119961 9.0 U	BKG: 6119961 9.0 U	0 (1)	15
Batch number: 10302302201B Perchlorate in Soil	Sample number(s): 6119973-6119978 93		80-120			UNSPK: 6119973 9.0 U	BKG: 6119973 9.0 U	0 (1)	15
Batch number: 10304243201A Hexavalent Chromium by IC	Sample number(s): 6119960-6119962, 6119964-6119978 88		75-125			UNSPK: 6119961 0.46 J	BKG: 6119961 0.41 J	11 (1)	20
Batch number: 10298039401A pH	Sample number(s): 6119960-6119961, 6119964-6119971 pH					BKG: 6119961 8.46	8.47	0	1
Batch number: 10298039401B pH	Sample number(s): 6119972-6119978 pH					BKG: P119981 6.39	6.22	3*	1
Batch number: 10298182101A Oxidation Reduction Potential	Sample number(s): 6119960-6119961, 6119964-6119971 Oxidation Reduction Potential					BKG: 6119961 235	233	1	6
Batch number: 10298182101B Oxidation Reduction Potential	Sample number(s): 6119972-6119978 Oxidation Reduction Potential					BKG: P119981 252	310	20*	6
Batch number: 10308162402A Moisture CDM	Sample number(s): 6119960, 6119965-6119978 Moisture CDM					BKG: P119961 11.5	15.7	31*	20
Batch number: 10309162401A Moisture CDM	Sample number(s): 6119961-6119964 Moisture CDM					BKG: 6119961 14.9	15.4	3	20
Moisture CDM						14.9	15.4	3	20
Moisture Duplicate CDM						14.9	15.4	3	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: Selected SVOAs in soil by SIM

Batch number: 10298SLH026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6119960	91	86	96
6119961	92	85	86
6119962	100	90	93
6119963	95	86	89
6119965	87	86	82
6119966	90	89	84
6119967	97	91	82
6119968	126	114	108

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

Surrogate Quality Control

6119969	64	61	56
6119970	86	83	80
6119971	92	89	80
6119972	86	88	83
6119973	86	86	81
6119974	83	82	78
6119975	92	89	84
6119976	89	88	82
6119977	90	88	82
6119978	95	90	87
Blank	86	84	91
LCS	90	85	88
MS	100	90	93
MSD	95	86	89

Limits: 40-130 45-130 45-135

Analysis Name: TCL SW846 Semivolatiles Soil
Batch number: 10301SLD026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6119960	82	87	86	84	95	87
6119961	87	90	83	85	93	87
6119962	84	88	86	84	93	80
6119963	79	80	82	76	86	80
6119965	80	84	77	84	89	81
6119966	81	86	84	83	94	87
6119967	85	89	87	85	92	83
6119968	85	90	89	87	96	83
6119969	84	89	84	86	93	82
6119970	76	79	73	73	83	72
6119971	80	82	85	78	92	82
6119972	81	86	89	83	94	85
6119973	83	85	84	80	93	83
6119974	85	89	83	84	93	83
6119975	83	87	84	80	91	83
6119976	79	83	84	82	91	82
6119977	85	87	91	83	91	90
6119978	86	87	86	82	89	91
Blank	78	83	84	81	88	86
LCS	82	83	86	77	86	84
MS	84	88	86	84	93	80
MSD	79	80	82	76	86	80

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: PCBs & PCTs in Soil
Batch number: 102990003A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6119960	171*	354*
6119961	95	125*
6119962	97	85
6119963	95	104
6119965	122	112
6119966	115	99
6119967	88	81
6119968	104	89

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

Surrogate Quality Control

6119969	72	64
6119970	104	82
6119971	112	96
6119972	113	101
6119973	108	89
6119974	98	87
6119975	107	92
6119976	110	92
6119977	114	100
6119978	96	86
Blank	94	97
LCS	102	109
LCSD	97	103
MS	97	85
MSD	95	104

Limits: 53-139 45-120

Analysis Name: Herbicide soils 8151A Master
Batch number: 103000014A
2,4-Dichlorophenylacetic
acid

6119960	89
6119961	145
6119962	175*
6119963	152
6119965	92
6119966	126
6119967	86
6119968	64
6119969	97
6119970	79
6119971	95
6119972	112
6119973	86
6119974	86
6119975	112
6119976	101
6119977	132
6119978	92
Blank	73
LCS	82
MS	141
MSD	145

Limits: 36-156

Analysis Name: OC Pesticides in Solids
Batch number: 103020020A
Tetrachloro-m-xylene Decachlorobiphenyl

6119960	106	188*
6119961	84	188*
6119962	65	140*
6119963	63	0*
6119965	65	68

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/10 at 11:27 AM

Group Number: 1217631

Surrogate Quality Control

6119966	75	64
6119967	78	136*
6119968	63	54
6119969	83	0*
6119970	25*	0*
6119971	16*	5*
6119972	79	57
6119973	87	119
6119974	79	71
6119975	77	73
6119976	84	131*
6119977	75	73
6119978	50	89
Blank	50	111
LCS	63	117
MS	65	140*
MSD	63	0*

Limits: 50-130 20-120

*- Outside of specification

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13013 1217631 6119966-78

CHAIN OF CUSTODY RECORD

[illegible]

11/19/10

✓ DUP-01-SA5C-QC-102010

NLW 19/10

13013 1217631 6119966-78

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 Perchlorate non-detects to be confirmed using EPA 8350 on samples selected by Lancaster Labs						VOCs/EPA 8260B	SL-4-Chrome EPA 8260M	SVOCs EPA 8270C	PAHs EPA 8270SM	TPH g/mo/l EPA 8015B	**Metals EPA 8210/8000/8474/71A	**Hex Chrome EPA 7159*	**Fluoride EPA 8030	**PCBs EPA 8082	**Dieldrin/Furans EPA 1631B	**Perchlorate EPA 814.0	**Pesticides EPA 8061A	**Herbicides EPA 8151	**Nitrate EPA 803.0	**Formaldehyde EPA 8151A		**Hydrazine EPA 8215A	**HCHOA EPA 1631C	**Organics EPA 8260A	**Cyanide EPA 8330A	**pH EPA 8042C
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-124-SASC-SS-0.0-0.5	10.20.10	0920	soil	none	2 stainless steel sleeves																					
SL-136-SASC-SS-0.0-0.5	10.20.10	1040	soil	none	4 stainless steel sleeves																				MS/MSD sample	
SL-137-SASC-SS-0.0-0.5	10.20.10	0850	soil	none	2 stainless steel sleeves																					
SL-112-SASC-SS-0.0-0.5	10.20.10	1455	soil	none	2 stainless steel sleeves																					
SL-144-SASC-SS-0.0-0.5	10.20.10	1330	soil	none	2 stainless steel sleeves																					
SL-145-SASC-SS-0.0-0.5	10.20.10	0945	soil	none	2 stainless steel sleeves																					
DUP-01-SASC-QC-0.0-0.5	10.20.10	1055	soil	none	2 stainless steel sleeves																					
SL-143-SASC-SS-0.0-0.5	10.20.10	1355	soil	none	2 stainless steel sleeves																					
SL-141-SASC-SS-0.0-0.5	10.20.10	1415	soil	none	2 stainless steel sleeves																					
SL-104-SASC-SS-0.0-0.5	10.21.10	0855	soil	none	2 stainless steel sleeves																					
SL-098-SASC-SS-0.0-0.5	10.21.10	0925	soil	none	2 brass sleeves																					
SL-099-SASC-SS-0.0-0.5	10.21.10	0915	soil	none	2 brass sleeves																					
SL-103-SASC-SS-0.0-0.5	10.21.10	0905	soil	none	1 brass & 1 SS sleeve																					
SL-100-SASC-SS-0.0-0.5	10.21.10	0835	soil	none	2 brass sleeves																					
SL-101-SASC-SS-0.0-0.5	10.21.10	0830	soil	none	2 brass sleeves																					
SL-107-SASC-SS-0.0-0.5	10.21.10	1005	soil	none	2 brass sleeves																					
Subscribed by: (Signature) <i>Tom Blum</i> Date/Time 10/21/10 1700						Relinquished by: (Signature) _____ Date/Time _____		Relinquished by: (Signature) _____ Date/Time _____		Received for Laboratory by: (Signature) _____ Date/Time 10/21/10 0850		Laboratory: Lancaster Laboratories, Inc.														
Received by: (Signature) _____ Date/Time _____						Received by: (Signature) _____ Date/Time _____		Received by: (Signature) <i>CS</i> Date/Time 10/21/10 0850		ASMR No. 7995 2496 0V29		Page 1 of 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		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

REVISED

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 20, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/22/2010

Group Number: 1217632

SDG: DE002

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-108-SA5C-SS-0.0-0.5 Grab Soil	6119979
SL-067-SA5C-SS-0.0-0.5 Grab Soil	6119980
SL-068-SA5C-SS-0.0-0.5 Grab Soil	6119981
SL-072-SA5C-SS-0.0-0.5 Grab Soil	6119982
SL-079-SA5C-SS-0.0-0.5 Grab Soil	6119983
SL-080-SA5C-SS-0.0-0.5 Grab Soil	6119984
SL-054-SA5C-SS-0.0-0.5 Grab Soil	6119985
SL-051-SA5C-SS-0.0-0.5 Grab Soil	6119986
SL-051-SA5C-SS-0.0-0.5 MS Grab Soil	6119987
SL-051-SA5C-SS-0.0-0.5 MSD Grab Soil	6119988
SL-051-SA5C-SS-0.0-0.5 DUP Grab Soil	6119989
SL-052-SA5C-SS-0.0-0.5 Grab Soil	6119990
DUP-02-SA5C-QC-102110 Grab Soil	6119991

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

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CDM Federal Services Program

Data Package Group
CDM Federal Services Program

Attn: John Wondolleck

Attn: Todd Burgesser

REVISED

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

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist

Sample Description: SL-108-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SS-0.0-0.5

LLI Sample # SW 6119979
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL108 SDG#: DE002-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

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

Sample Description: SL-108-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SS-0.0-0.5

LLI Sample # SW 6119979
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL108 SDG#: DE002-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	2.2	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.93 J	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	5.7	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	5.1	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	4.1	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	3.9	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	12 J	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	16	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	1.4 J	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4 J	6.4	19	1
10138	Fluoranthene	206-44-0	4.5	0.72	1.8	1
10138	Fluorene	86-73-7	0.89 J	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.3 J	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	1.4 J	0.72	1.8	1
10138	Pyrene	129-00-0	7.8	0.72	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.9	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.7	1
10401	2,4-DB	94-82-6	3.2 U	3.2	3.2	1
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3	1
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8	1
10401	MCPA	94-74-6	120 U	120	270	1
10401	MCPP (Mecoprop)	93-65-2	81 U	81	270	1
10401	2,4,5-T	93-76-5	0.35	0.088	0.18	1
10401	2,4,5-TP	93-72-1	0.081 U	0.081	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: SL-108-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SS-0.0-0.5

LLI Sample # SW 6119979
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL108 SDG#: DE002-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: MCPA and 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.24	0.037	0.18	1
01363	Chlordane	57-74-9	5.9 U	5.9	5.9	1
01363	p,p-DDD	72-54-8	1.2 U	1.2	1.2	1
01363	p,p-DDE	72-55-9	0.91 U	0.91	0.91	1
01363	p,p-DDT	50-29-3	1.7 U	1.7	1.7	1
01363	Delta BHC	319-86-8	0.15 J	0.039	0.18	1
01363	Dieldrin	60-57-1	0.37 U	0.37	0.37	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.35 U	0.35	0.37	1
01363	Endrin	72-20-8	1.3 U	1.3	1.3	1
01363	Endrin Aldehyde	7421-93-4	1.7 U	1.7	1.7	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37	1
01363	Heptachlor	76-44-8	1.1 U	1.1	1.1	1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18	1
01363	Methoxychlor	72-43-5	3.4 U	3.4	3.4	1
01363	Mirex	2385-85-5	0.56 U	0.56	0.56	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	2.1 U	2.1	7.1	2
10225	Aroclor 5442	12642-23-8	2.1 U	2.1	7.1	2
10225	Aroclor 5460	11126-42-4	2.1 U	2.1	7.1	2
10225	PCB-1016	12674-11-2	0.71 U	0.71	3.7	2
10225	PCB-1221	11104-28-2	1.1 U	1.1	3.7	2
10225	PCB-1232	11141-16-5	1.1 U	1.1	3.7	2
10225	PCB-1242	53469-21-9	1.1 U	1.1	3.7	2
10225	PCB-1248	12672-29-6	0.71 U	0.71	3.7	2
10225	PCB-1254	11097-69-1	76	0.71	3.7	2
10225	PCB-1260	11096-82-5	11	0.71	3.7	2
10225	PCB-1262	37324-23-5	0.71 U	0.71	3.7	2
10225	PCB-1268	11100-14-4	0.71 U	0.71	3.7	2
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	16,600	5.19	20.7	1
07914	Boron	7440-42-8	2.62 J	0.919	5.16	1
01650	Calcium	7440-70-2	2,820	6.33	20.7	1
01654	Iron	7439-89-6	20,500	4.86	20.7	1
01656	Lithium	7439-93-2	12.5	0.23	2.1	1
01657	Magnesium	7439-95-4	2,880	2.62	10.3	1

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

Sample Description: SL-108-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SS-0.0-0.5

LLI Sample # SW 6119979
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL108 SDG#: DE002-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
06958	Manganese	7439-96-5	253	0.0806	0.516	1
10145	Phosphorus	7723-14-0	312	0.578	10.3	1
01662	Potassium	7440-09-7	1,960	18.6	51.6	1
01667	Sodium	7440-23-5	144	38.5	103	1
07968	Strontium	7440-24-6	23.4	0.0640	0.516	1
06969	Tin	7440-31-5	2.29 J	1.03	10.3	1
06970	Titanium	7440-32-6	1,060	1.96	5.16	5
10146	Zirconium	7440-67-7	3.62 J	0.868	5.16	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.161 J	0.0644	0.215	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.27	0.0644	0.430	2
06126	Barium	7440-39-3	115	0.116	0.430	2
06127	Beryllium	7440-41-7	0.666	0.0172	0.107	2
06128	Cadmium	7440-43-9	0.191	0.0387	0.107	2
06131	Chromium	7440-47-3	22.4	0.129	0.430	2
06132	Cobalt	7440-48-4	6.83	0.0215	0.107	2
06133	Copper	7440-50-8	24.4	0.0709	0.430	2
06135	Lead	7439-92-1	8.17	0.0112	0.215	2
06138	Molybdenum	7439-98-7	0.701	0.0537	0.107	2
06139	Nickel	7440-02-0	12.3	0.107	0.430	2
06141	Selenium	7782-49-2	0.192 J	0.0430	0.430	2
06142	Silver	7440-22-4	0.0413 J	0.0129	0.107	2
06145	Thallium	7440-28-0	0.291	0.0322	0.107	2
06148	Vanadium	7440-62-2	46.3	0.0236	0.107	2
06149	Zinc	7440-66-6	62.1	0.602	3.22	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.367	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.64 J	0.21	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	183	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

Sample Description: SL-108-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SS-0.0-0.5

LLI Sample # SW 6119979
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL108 SDG#: DE002-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.44	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	6.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 12:27	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/19/2010 10:01	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 00:32	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 07:08	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 18:04	Lindsey K Lafferty	2
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:19	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:19	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1

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

Sample Description: SL-108-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SS-0.0-0.5

LLI Sample # SW 6119979
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 09:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL108 SDG#: DE002-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 06:37	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:07	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:28	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:28	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:28	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:28	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 17:04	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 18:47	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10307243201A	11/04/2010 15:38	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-067-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SS-0.0-0.5

LLI Sample # SW 6119980
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL067 SDG#: DE002-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	74	U 74	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	74	U 74	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

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

Sample Description: SL-067-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SS-0.0-0.5

LLI Sample # SW 6119980
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL067 SDG#: DE002-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.49 J	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	2.2	0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	2.2	0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	4.6	0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.0 J	0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.4 J	0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	3.6	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.7 J	6.6	20	1
10138	Fluoranthene	206-44-0	3.4	0.74	1.8	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.89 J	0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	2.9	0.74	1.8	1
10138	Pyrene	129-00-0	4.3	0.74	1.8	1

The GC/MS semivolatile internal standard peak areas were outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	4.0
10401	Dalapon	75-99-0	4.9 U	4.9	9.9
10401	2,4-DB	94-82-6	2.6 U	2.6	2.6
10401	Dicamba	1918-00-9	0.44 U	0.44	1.3
10401	Dinoseb	88-85-7	0.88 U	0.88	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.88 U	0.88	1.9
10401	MCPA	94-74-6	530	84	280
10401	MCPP (Mecoprop)	93-65-2	83 U	83	280
10401	2,4,5-T	93-76-5	0.091 U	0.091	0.19
10401	2,4,5-TP	93-72-1	0.083 U	0.083	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation

Sample Description: SL-067-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SS-0.0-0.5

LLI Sample # SW 6119980
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL067 SDG#: DE002-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.073 U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.18 U	0.18	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.038 U	0.038	0.18	1
01363	Chlordane	57-74-9	3.0 U	3.0	3.8	1
01363	p,p-DDD	72-54-8	0.55 U	0.55	0.55	1
01363	p,p-DDE	72-55-9	0.42 U	0.42	0.42	1
01363	p,p-DDT	50-29-3	0.97 U	0.97	0.97	1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.18	1
01363	Dieldrin	60-57-1	0.18 U	0.18	0.38	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.18	1
01363	Endosulfan II	33213-65-9	0.12 U	0.12	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.23 U	0.23	0.38	1
01363	Endrin	72-20-8	0.073 U	0.073	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.51 U	0.51	0.51	1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.38	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.038 U	0.038	0.18	1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.8	1
01363	Mirex	2385-85-5	0.43 U	0.43	0.43	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	11	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	5.2	0.36	1.9	1
10225	PCB-1260	11096-82-5	3.0	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	18,400	5.44	21.6	1
07914	Boron	7440-42-8	3.14 J	0.963	5.41	1
01650	Calcium	7440-70-2	3,720	6.63	21.6	1
01654	Iron	7439-89-6	24,100	5.10	21.6	1
01656	Lithium	7439-93-2	20.3	0.24	2.2	1

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

Sample Description: SL-067-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SS-0.0-0.5

LLI Sample # SW 6119980
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL067 SDG#: DE002-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	4,230	2.75	10.8	1
06958	Manganese	7439-96-5	319	0.0844	0.541	1
10145	Phosphorus	7723-14-0	353	0.606	10.8	1
01662	Potassium	7440-09-7	2,890	19.5	54.1	1
01667	Sodium	7440-23-5	123	40.4	108	1
07968	Strontium	7440-24-6	43.9	0.0671	0.541	1
06969	Tin	7440-31-5	2.62 J	1.08	10.8	1
06970	Titanium	7440-32-6	1,260	2.06	5.41	5
10146	Zirconium	7440-67-7	3.12 J	0.909	5.41	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.284	0.0643	0.214	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.59	0.0643	0.429	2
06126	Barium	7440-39-3	147	0.116	0.429	2
06127	Beryllium	7440-41-7	0.742	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.486	0.0386	0.107	2
06131	Chromium	7440-47-3	27.1	0.129	0.429	2
06132	Cobalt	7440-48-4	7.73	0.0214	0.107	2
06133	Copper	7440-50-8	36.5	0.0707	0.429	2
06135	Lead	7439-92-1	20.1	0.0111	0.214	2
06138	Molybdenum	7439-98-7	3.15	0.0536	0.107	2
06139	Nickel	7440-02-0	17.0	0.107	0.429	2
06141	Selenium	7782-49-2	0.376 J	0.0429	0.429	2
06142	Silver	7440-22-4	0.0691 J	0.0129	0.107	2
06145	Thallium	7440-28-0	0.334	0.0321	0.107	2
06148	Vanadium	7440-62-2	51.4	0.0236	0.107	2
06149	Zinc	7440-66-6	161	0.600	3.21	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0159 J	0.0030	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.62 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	176	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

Sample Description: SL-067-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SS-0.0-0.5

LLI Sample # SW 6119980
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL067 SDG#: DE002-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.67	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	9.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 12:53	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/18/2010 21:18	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 01:00	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 07:22	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 18:22	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:22	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:22	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1

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

Sample Description: SL-067-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SS-0.0-0.5

LLI Sample # SW 6119980
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL067 SDG#: DE002-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 06:41	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:17	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:31	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:31	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:31	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:31	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:35	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 17:49	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 19:11	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10307243201A	11/04/2010 15:45	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-068-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SS-0.0-0.5

LLI Sample # SW 6119981
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL068 SDG#: DE002-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	710	U 710	2,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

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

Sample Description: SL-068-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SS-0.0-0.5

LLI Sample # SW 6119981
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL068 SDG#: DE002-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.1 J	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	1.2 J	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	1.3 J	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	1.4 J	0.71	1.8	1
10138	Pyrene	129-00-0	1.6 J	0.71	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.8	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.6	1
10401	2,4-DB	94-82-6	3.8 U	3.8	3.8	1
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3	1
10401	Dinoseb	88-85-7	0.85 U	0.85	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8	1
10401	MCPA	94-74-6	290	81	270	1
10401	MCPP (Mecoprop)	93-65-2	130 J	80	270	1
10401	2,4,5-T	93-76-5	0.088 U	0.088	0.18	1
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: SL-068-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SS-0.0-0.5

LLI Sample # SW 6119981
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL068 SDG#: DE002-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: 2,4-DB.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.091 U	0.091	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	2.4 U	2.4	3.6	1
01363	p,p-DDD	72-54-8	0.57 U	0.57	0.57	1
01363	p,p-DDE	72-55-9	0.45 U	0.45	0.45	1
01363	p,p-DDT	50-29-3	0.92 U	0.92	0.92	1
01363	Delta BHC	319-86-8	0.038 U	0.038	0.18	1
01363	Dieldrin	60-57-1	0.23 U	0.23	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.13 U	0.13	0.36	1
01363	Endrin	72-20-8	0.071 U	0.071	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.26 U	0.26	0.36	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.18	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.27 U	0.27	0.36	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	4.8	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.53 U	0.53	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.53 U	0.53	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	2.5	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.1	0.35	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,100	5.17	20.5	1
07914	Boron	7440-42-8	2.05 J	0.914	5.14	1
01650	Calcium	7440-70-2	2,370	6.30	20.5	1
01654	Iron	7439-89-6	20,200	4.84	20.5	1
01656	Lithium	7439-93-2	21.1	0.23	2.1	1
01657	Magnesium	7439-95-4	3,670	2.61	10.3	1
06958	Manganese	7439-96-5	310	0.0801	0.514	1
10145	Phosphorus	7723-14-0	336	0.575	10.3	1

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

Sample Description: SL-068-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SS-0.0-0.5

LLI Sample # SW 6119981
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL068 SDG#: DE002-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	3,200	18.5	51.4	1
01667	Sodium	7440-23-5	91.9 J	38.3	103	1
07968	Strontium	7440-24-6	17.8	0.0637	0.514	1
06969	Tin	7440-31-5	2.46 J	1.03	10.3	1
06970	Titanium	7440-32-6	1,200	1.95	5.14	5
10146	Zirconium	7440-67-7	2.75 J	0.863	5.14	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.240	0.0628	0.209	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.95	0.0628	0.419	2
06126	Barium	7440-39-3	127	0.113	0.419	2
06127	Beryllium	7440-41-7	0.667	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.224	0.0377	0.105	2
06131	Chromium	7440-47-3	24.7	0.126	0.419	2
06132	Cobalt	7440-48-4	6.80	0.0209	0.105	2
06133	Copper	7440-50-8	15.7	0.0691	0.419	2
06135	Lead	7439-92-1	32.7	0.0109	0.209	2
06138	Molybdenum	7439-98-7	2.40	0.0524	0.105	2
06139	Nickel	7440-02-0	13.8	0.105	0.419	2
06141	Selenium	7782-49-2	0.267 J	0.0419	0.419	2
06142	Silver	7440-22-4	0.0401 J	0.0126	0.105	2
06145	Thallium	7440-28-0	0.328	0.0314	0.105	2
06148	Vanadium	7440-62-2	43.7	0.0230	0.105	2
06149	Zinc	7440-66-6	81.6	0.587	3.14	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0183 J	0.0030	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.8	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.7	0.21	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	570	10.0	10.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	6.39	0.0100	0.0100	1

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

Sample Description: SL-068-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SS-0.0-0.5

LLI Sample # SW 6119981
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL068 SDG#: DE002-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	6.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 13:20	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/19/2010 11:03	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 01:27	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 07:36	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 18:41	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:32	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:32	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 06:44	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:21	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2

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

Sample Description: SL-068-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SS-0.0-0.5

LLI Sample # SW 6119981
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL068 SDG#: DE002-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:40	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:40	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:40	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:40	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:36	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 18:04	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 19:59	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10307243201A	11/04/2010 16:06	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	3	10313182101A	11/09/2010 11:00	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-072-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SS-0.0-0.5

LLI Sample # SW 6119982
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL072 SDG#: DE002-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

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

Sample Description: SL-072-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SS-0.0-0.5

LLI Sample # SW 6119982
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL072 SDG#: DE002-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.0 J	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.2 J	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	2.7	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.1 J	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.86 J	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Chrysene	218-01-9	2.3	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11 J	6.5	19	1
10138	Fluoranthene	206-44-0	1.9	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	1.1 J	0.72	1.8	1
10138	Pyrene	129-00-0	2.8	0.72	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.9	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.7	1
10401	2,4-DB	94-82-6	2.9 U	2.9	2.9	1
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3	1
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8	1
10401	MCPA	94-74-6	470 U	470	470	1
10401	MCPP (Mecoprop)	93-65-2	81 U	81	270	1
10401	2,4,5-T	93-76-5	0.088 U	0.088	0.18	1
10401	2,4,5-TP	93-72-1	0.081 U	0.081	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: SL-072-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SS-0.0-0.5

LLI Sample # SW 6119982
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL072 SDG#: DE002-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: 2,4-DB.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.065 U	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.31 U	0.31	0.31	1
01363	Chlordane	57-74-9	1.9 U	1.9	3.7	1
01363	p,p-DDD	72-54-8	0.66 U	0.66	0.66	1
01363	p,p-DDE	72-55-9	0.56 U	0.56	0.56	1
01363	p,p-DDT	50-29-3	1.0 U	1.0	1.0	1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.18 U	0.18	0.37	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.16 U	0.16	0.37	1
01363	Endrin	72-20-8	0.071 U	0.071	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.27 U	0.27	0.37	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37	1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.079 U	0.079	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.24 U	0.24	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	25	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	15	0.36	1.8	1
10225	PCB-1260	11096-82-5	4.5	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,200	5.31	21.1	1
07914	Boron	7440-42-8	1.38 J	0.940	5.28	1
01650	Calcium	7440-70-2	3,640	6.48	21.1	1
01654	Iron	7439-89-6	24,800	4.98	21.1	1
01656	Lithium	7439-93-2	15.9	0.23	2.1	1
01657	Magnesium	7439-95-4	6,130	2.68	10.6	1
06958	Manganese	7439-96-5	336	0.0824	0.528	1
10145	Phosphorus	7723-14-0	680	0.592	10.6	1

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

Sample Description: SL-072-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SS-0.0-0.5

LLI Sample # SW 6119982
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL072 SDG#: DE002-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	5,370	19.0	52.8	1
01667	Sodium	7440-23-5	217	39.4	106	1
07968	Strontium	7440-24-6	22.2	0.0655	0.528	1
06969	Tin	7440-31-5	2.22 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,780	2.01	5.28	5
10146	Zirconium	7440-67-7	2.07 J	0.887	5.28	1
		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.103 J	0.0622	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	2.48	0.0622	0.414	2
06126	Barium	7440-39-3	147	0.280	1.04	5
06127	Beryllium	7440-41-7	0.227	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.126	0.0373	0.104	2
06131	Chromium	7440-47-3	13.4	0.124	0.414	2
06132	Cobalt	7440-48-4	7.23	0.0207	0.104	2
06133	Copper	7440-50-8	27.0	0.0684	0.414	2
06135	Lead	7439-92-1	5.85	0.0108	0.207	2
06138	Molybdenum	7439-98-7	1.13	0.0518	0.104	2
06139	Nickel	7440-02-0	8.61	0.104	0.414	2
06141	Selenium	7782-49-2	0.134 J	0.0414	0.414	2
06142	Silver	7440-22-4	0.0271 J	0.0124	0.104	2
06145	Thallium	7440-28-0	0.300	0.0311	0.104	2
06148	Vanadium	7440-62-2	55.8	0.0228	0.104	2
06149	Zinc	7440-66-6	86.0	0.580	3.11	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0068 J	0.0030	0.104	1
Wet Chemistry						
		EPA 300.0	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.4	0.86	1.1	1
		EPA 314.0	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.3	1
		SW-846 7199	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.35 J	0.22	1.1	1
		ASTM D1498	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	203	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	

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

Sample Description: SL-072-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SS-0.0-0.5

LLI Sample # SW 6119982
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL072 SDG#: DE002-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	6.90	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	7.2	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 13:46	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/19/2010 11:33	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 01:55	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 07:50	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 18:59	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:35	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:35	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1

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

Sample Description: SL-072-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SS-0.0-0.5

LLI Sample # SW 6119982
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:35 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL072 SDG#: DE002-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 06:47	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:24	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 19:24	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:44	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:44	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:44	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:38	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 18:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 20:23	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10307243201A	11/04/2010 16:20	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182101B	10/25/2010 08:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039401B	10/25/2010 08:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-079-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SS-0.0-0.5

LLI Sample # SW 6119983
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL079 SDG#: DE002-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

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

Sample Description: SL-079-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SS-0.0-0.5

LLI Sample # SW 6119983
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL079 SDG#: DE002-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.3 J	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.5 J	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.2	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.84 J	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.3 J	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	17 J	6.5	19	1
10138	Chrysene	218-01-9	2.9	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.2 J	6.5	19	1
10138	Fluoranthene	206-44-0	2.2	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	1.4 J	0.72	1.8	1
10138	Pyrene	129-00-0	3.0	0.72	1.8	1

The GC/MS semivolatile internal standard peak areas were outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.9
10401	Dalapon	75-99-0	4.7 U	4.7	9.7
10401	2,4-DB	94-82-6	2.9 U	2.9	2.9
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8
10401	MCPA	94-74-6	270	82	270
10401	MCPP (Mecoprop)	93-65-2	81 U	81	270
10401	2,4,5-T	93-76-5	0.088 U	0.088	0.18
10401	2,4,5-TP	93-72-1	0.081 U	0.081	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation

Sample Description: SL-079-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SS-0.0-0.5

LLI Sample # SW 6119983
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL079 SDG#: DE002-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Perchlorate SW-846 6850 1/2007 ug/kg ug/kg ug/kg						
06557	6a Perchlorate EPA 6850	14797-73-0	2.3 U	2.3	5.4	1
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.065 U	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	2.0 U	2.0	3.7	1
01363	p,p-DDD	72-54-8	0.55 U	0.55	0.55	1
01363	p,p-DDE	72-55-9	0.79 U	0.79	0.79	1
01363	p,p-DDT	50-29-3	1.3 U	1.3	1.3	1
01363	Delta BHC	319-86-8	0.042 U	0.042	0.18	1
01363	Dieldrin	60-57-1	0.13 U	0.13	0.37	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.19 U	0.19	0.37	1
01363	Endrin	72-20-8	0.071 U	0.071	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.23 U	0.23	0.37	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37	1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.33 U	0.33	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	3.2 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.91 J	0.36	1.8	1
10225	PCB-1260	11096-82-5	1.5 J	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	16,000	5.37	21.4	1
07914	Boron	7440-42-8	2.11 J	0.951	5.34	1

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

Sample Description: SL-079-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SS-0.0-0.5

LLI Sample # SW 6119983
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL079 SDG#: DE002-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01650	Calcium	7440-70-2	4,720	6.55	21.4	1
01654	Iron	7439-89-6	28,200	5.03	21.4	1
01656	Lithium	7439-93-2	17.9	0.23	2.1	1
01657	Magnesium	7439-95-4	6,520	2.71	10.7	1
06958	Manganese	7439-96-5	403	0.0833	0.534	1
10145	Phosphorus	7723-14-0	527	0.598	10.7	1
01662	Potassium	7440-09-7	4,140	19.2	53.4	1
01667	Sodium	7440-23-5	319	39.8	107	1
07968	Strontium	7440-24-6	27.6	0.0662	0.534	1
06969	Tin	7440-31-5	2.02 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,380	2.03	5.34	5
10146	Zirconium	7440-67-7	2.07 J	0.897	5.34	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.249	0.0622	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.84	0.0622	0.415	2
06126	Barium	7440-39-3	170	0.112	0.415	2
06127	Beryllium	7440-41-7	0.452	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.422	0.0373	0.104	2
06131	Chromium	7440-47-3	20.7	0.124	0.415	2
06132	Cobalt	7440-48-4	7.66	0.0207	0.104	2
06133	Copper	7440-50-8	20.8	0.0685	0.415	2
06135	Lead	7439-92-1	15.3	0.0108	0.207	2
06138	Molybdenum	7439-98-7	0.798	0.0519	0.104	2
06139	Nickel	7440-02-0	13.0	0.104	0.415	2
06141	Selenium	7782-49-2	0.121 J	0.0415	0.415	2
06142	Silver	7440-22-4	0.0265 J	0.0124	0.104	2
06145	Thallium	7440-28-0	0.329	0.0311	0.104	2
06148	Vanadium	7440-62-2	50.1	0.0228	0.104	2
06149	Zinc	7440-66-6	78.0	0.581	3.11	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0083 J	0.0030	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.2	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.67 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	

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

Sample Description: SL-079-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SS-0.0-0.5

LLI Sample # SW 6119983
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL079 SDG#: DE002-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	228	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.40	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	7.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 14:13	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/18/2010 22:51	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 02:22	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103060030A	11/03/2010 18:46	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 08:04	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 19:18	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103060030A	11/03/2010 10:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:39	Eric L Eby	1

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

Sample Description: SL-079-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SS-0.0-0.5

LLI Sample # SW 6119983
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL079 SDG#: DE002-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:39	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/05/2010 11:42	Eric L Eby	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:27	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:47	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:47	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:47	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:47	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:39	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 18:35	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 20:47	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10307243201A	11/04/2010 16:34	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1

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

Sample Description: SL-079-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SS-0.0-0.5

LLI Sample # SW 6119983
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:15 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL079 SDG#: DE002-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-080-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SS-0.0-0.5

LLI Sample # SW 6119984
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:00 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL080 SDG#: DE002-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

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

Sample Description: SL-080-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SS-0.0-0.5

LLI Sample # SW 6119984
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:00 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL080 SDG#: DE002-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.2 J	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.5 J	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.1	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.4 J	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	20	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	20	1
10138	Chrysene	218-01-9	2.6	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	20	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5 U	6.5	20	1
10138	Fluoranthene	206-44-0	2.8	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	20	1
10138	Phenanthrene	85-01-8	2.4	0.72	1.8	1
10138	Pyrene	129-00-0	3.8	0.72	1.8	1

The GC/MS semivolatile internal standard peak areas were outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.9
10401	Dalapon	75-99-0	4.8 U	4.8	9.8
10401	2,4-DB	94-82-6	9.3 U	9.3	9.3
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3
10401	Dinoseb	88-85-7	0.87 U	0.87	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.87 U	0.87	1.8
10401	MCPA	94-74-6	82 U	82	270
10401	MCPP (Mecoprop)	93-65-2	81 U	81	270
10401	2,4,5-T	93-76-5	0.089 U	0.089	0.18
10401	2,4,5-TP	93-72-1	0.081 U	0.081	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation

Sample Description: SL-080-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SS-0.0-0.5

LLI Sample # SW 6119984
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:00 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL080 SDG#: DE002-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363	Alpha BHC	319-84-6	0.66 U	0.66	0.66	1
01363	Beta BHC	319-85-7	0.15 U	0.15	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.21 U	0.21	0.21	1
01363	Chlordane	57-74-9	3.0 U	3.0	3.7	1
01363	p,p-DDD	72-54-8	0.47 U	0.47	0.47	1
01363	p,p-DDE	72-55-9	0.56 U	0.56	0.56	1
01363	p,p-DDT	50-29-3	0.29 U	0.29	0.37	1
01363	Delta BHC	319-86-8	0.051 U	0.051	0.18	1
01363	Dieldrin	60-57-1	0.072 U	0.072	0.37	1
01363	Endosulfan I	959-98-8	0.11 U	0.11	0.18	1
01363	Endosulfan II	33213-65-9	0.072 U	0.072	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.077 U	0.077	0.37	1
01363	Endrin	72-20-8	0.072 U	0.072	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.28 U	0.28	0.37	1
01363	Endrin Ketone	53494-70-5	0.19 U	0.19	0.37	1
01363	Heptachlor	76-44-8	0.087 U	0.087	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.11 U	0.11	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.20 U	0.20	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.5 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	1.1 J	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.96 J	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	19,100	5.34	21.2	1
07914	Boron	7440-42-8	4.59 J	0.945	5.31	1
01650	Calcium	7440-70-2	3,770	6.51	21.2	1
01654	Iron	7439-89-6	21,200	5.00	21.2	1
01656	Lithium	7439-93-2	14.0	0.23	2.1	1

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

Sample Description: SL-080-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SS-0.0-0.5

LLI Sample # SW 6119984
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:00 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL080 SDG#: DE002-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	3,900	2.70	10.6	1
06958	Manganese	7439-96-5	450	0.0829	0.531	1
10145	Phosphorus	7723-14-0	246	0.595	10.6	1
01662	Potassium	7440-09-7	3,850	19.1	53.1	1
01667	Sodium	7440-23-5	93.8 J	39.6	106	1
07968	Strontium	7440-24-6	28.1	0.0659	0.531	1
06969	Tin	7440-31-5	2.44 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,290	2.02	5.31	5
10146	Zirconium	7440-67-7	3.56 J	0.892	5.31	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.174 J	0.0631	0.210	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.14	0.0631	0.421	2
06126	Barium	7440-39-3	140	0.114	0.421	2
06127	Beryllium	7440-41-7	0.694	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.271	0.0379	0.105	2
06131	Chromium	7440-47-3	25.2	0.126	0.421	2
06132	Cobalt	7440-48-4	9.28	0.0210	0.105	2
06133	Copper	7440-50-8	97.1	0.0694	0.421	2
06135	Lead	7439-92-1	12.3	0.0109	0.210	2
06138	Molybdenum	7439-98-7	0.871	0.0526	0.105	2
06139	Nickel	7440-02-0	16.3	0.105	0.421	2
06141	Selenium	7782-49-2	0.166 J	0.0421	0.421	2
06142	Silver	7440-22-4	0.0289 J	0.0126	0.105	2
06145	Thallium	7440-28-0	0.374	0.0316	0.105	2
06148	Vanadium	7440-62-2	49.8	0.0231	0.105	2
06149	Zinc	7440-66-6	110	0.589	3.16	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.69 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	203	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

Sample Description: SL-080-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SS-0.0-0.5

LLI Sample # SW 6119984
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:00 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL080 SDG#: DE002-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.06	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	7.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 14:39	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/18/2010 23:22	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 03:45	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 08:19	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 19:36	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:45	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:45	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1

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

Sample Description: SL-080-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SS-0.0-0.5

LLI Sample # SW 6119984
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 11:00 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL080 SDG#: DE002-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 06:57	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:31	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:50	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/06/2010 05:52	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:50	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:50	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:50	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:40	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 18:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 21:11	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10307243201A	11/04/2010 16:41	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-054-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SS-0.0-0.5

LLI Sample # SW 6119985
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 12:10 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL054 SDG#: DE002-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	750	U 750	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

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

Sample Description: SL-054-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SS-0.0-0.5

LLI Sample # SW 6119985
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 12:10 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL054 SDG#: DE002-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.39 J	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	2.8	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	2.6	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	4.4	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	1.1 J	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	2.1	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	3.9	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	16 J	6.7	20	1
10138	Fluoranthene	206-44-0	4.2	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.84 J	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	2.3	0.75	1.9	1
10138	Pyrene	129-00-0	6.3	0.75	1.9	1

The GC/MS semivolatile internal standard peak areas were outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	4.0
10401	Dalapon	75-99-0	4.9 U	4.9	10
10401	2,4-DB	94-82-6	3.0 U	3.0	3.0
10401	Dicamba	1918-00-9	0.45 U	0.45	1.3
10401	Dinoseb	88-85-7	0.90 U	0.90	2.7
10401	2,4-DP (Dichlorprop)	120-36-5	0.90 U	0.90	1.9
10401	MCPA	94-74-6	700	85	280
10401	MCPP (Mecoprop)	93-65-2	160 U	160	280
10401	2,4,5-T	93-76-5	0.092 U	0.092	0.19
10401	2,4,5-TP	93-72-1	0.084 U	0.084	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation

Sample Description: SL-054-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SS-0.0-0.5

LLI Sample # SW 6119985
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 12:10 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL054 SDG#: DE002-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: MCPA and 2,4-DB.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.090 U	0.090	0.19	1
01363	Alpha BHC	319-84-6	0.038 U	0.038	0.19	1
01363	Beta BHC	319-85-7	0.067 U	0.067	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.038 U	0.038	0.19	1
01363	Chlordane	57-74-9	2.5 U	2.5	3.8	1
01363	p,p-DDD	72-54-8	1.3 U	1.3	1.3	1
01363	p,p-DDE	72-55-9	0.77 U	0.77	0.77	1
01363	p,p-DDT	50-29-3	1.5 U	1.5	1.5	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.19	1
01363	Dieldrin	60-57-1	0.39 U	0.39	0.39	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.19	1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.27 U	0.27	0.38	1
01363	Endrin	72-20-8	0.074 U	0.074	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.40 U	0.40	0.40	1
01363	Endrin Ketone	53494-70-5	0.074 U	0.074	0.38	1
01363	Heptachlor	76-44-8	0.067 U	0.067	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.082 U	0.082	0.19	1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.9	1
01363	Mirex	2385-85-5	1.2 U	1.2	1.2	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.4	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	6.5	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.56 U	0.56	1.9	1
10225	PCB-1232	11141-16-5	0.58 U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.56 U	0.56	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	11	0.37	1.9	1
10225	PCB-1260	11096-82-5	4.2	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	15,200	5.58	22.2	1
07914	Boron	7440-42-8	2.97 J	0.988	5.55	1
01650	Calcium	7440-70-2	2,810	6.80	22.2	1
01654	Iron	7439-89-6	20,100	5.23	22.2	1
01656	Lithium	7439-93-2	16.8	0.24	2.2	1

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

Sample Description: SL-054-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SS-0.0-0.5

LLI Sample # SW 6119985
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 12:10 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL054 SDG#: DE002-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	3,920	2.82	11.1	1
06958	Manganese	7439-96-5	284	0.0866	0.555	1
10145	Phosphorus	7723-14-0	337	0.622	11.1	1
01662	Potassium	7440-09-7	2,720	20.0	55.5	1
01667	Sodium	7440-23-5	138	41.4	111	1
07968	Strontium	7440-24-6	26.3	0.0688	0.555	1
06969	Tin	7440-31-5	2.41 J	1.11	11.1	1
06970	Titanium	7440-32-6	1,140	2.11	5.55	5
10146	Zirconium	7440-67-7	2.29 J	0.932	5.55	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.340	0.0653	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.06	0.0653	0.435	2
06126	Barium	7440-39-3	148	0.118	0.435	2
06127	Beryllium	7440-41-7	0.854	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.399	0.0392	0.109	2
06131	Chromium	7440-47-3	38.0	0.131	0.435	2
06132	Cobalt	7440-48-4	6.43	0.0218	0.109	2
06133	Copper	7440-50-8	29.0	0.0718	0.435	2
06135	Lead	7439-92-1	17.8	0.0113	0.218	2
06138	Molybdenum	7439-98-7	3.33	0.0544	0.109	2
06139	Nickel	7440-02-0	16.0	0.109	0.435	2
06141	Selenium	7782-49-2	0.326 J	0.0435	0.435	2
06142	Silver	7440-22-4	0.0864 J	0.0131	0.109	2
06145	Thallium	7440-28-0	0.339	0.0327	0.109	2
06148	Vanadium	7440-62-2	57.3	0.0239	0.109	2
06149	Zinc	7440-66-6	107	0.610	3.27	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0032 J	0.0031	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.9	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	18.9 J	10.1	33.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.59 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	194	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					

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

Sample Description: SL-054-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SS-0.0-0.5

LLI Sample # SW 6119985
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 12:10 by AKW

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Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL054 SDG#: DE002-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.03	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	10.8	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 15:05	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/18/2010 23:53	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 04:12	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 08:34	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 19:55	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:49	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:49	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1

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

Sample Description: SL-054-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SS-0.0-0.5

LLI Sample # SW 6119985
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 12:10 by AKW

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Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL054 SDG#: DE002-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 07:00	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:35	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:53	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:53	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:53	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:43	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 19:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 21:35	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	10307243201A	11/04/2010 17:02	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-051-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119986
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	24	J 19	370	1
04688	Fluoranthene	206-44-0	20	J 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119986
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9	1
10138	Anthracene	120-12-7	0.45	J 0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	7.9	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	7.3	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	12	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	2.4	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	5.4	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20	1
10138	Chrysene	218-01-9	11	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.89	J 0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20	1
10138	Fluorene	86-73-7	0.74	U 0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	2.0	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.9	1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7	U 6.7	20	1
10138	Phenanthrene	85-01-8	2.5	0.74	1.9	1
10138	Pyrene	129-00-0	11	0.74	1.9	1

The GC/MS semivolatile internal standard peak areas were outside of QC limits. The matrix spike and matrix spike duplicate samples were analyzed and internal standard peak areas were again outside of QC limits, indicating a matrix effect.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0
10401	Dalapon	75-99-0	4.9	U 4.9	10
10401	2,4-DB	94-82-6	2.5	0.69	1.9
10401	Dicamba	1918-00-9	0.45	U 0.45	1.3
10401	Dinoseb	88-85-7	0.89	U 0.89	2.7
10401	2,4-DP (Dichlorprop)	120-36-5	0.89	U 0.89	1.9
10401	MCPA	94-74-6	400	85	280
10401	MCPP (Mecoprop)	93-65-2	84	U 84	280
10401	2,4,5-T	93-76-5	0.27	0.092	0.19
10401	2,4,5-TP	93-72-1	0.084	U 0.084	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Sample Description: SL-051-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119986
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.074 U	0.074	0.19	1
01363	Alpha BHC	319-84-6	0.038 U	0.038	0.19	1
01363	Beta BHC	319-85-7	0.16 J	0.067	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.038 U	0.038	0.19	1
01363	Chlordane	57-74-9	2.0 U	2.0	3.8	1
01363	p,p-DDD	72-54-8	0.86 U	0.86	0.86	1
01363	p,p-DDE	72-55-9	0.79 U	0.79	0.79	1
01363	p,p-DDT	50-29-3	2.2 U	2.2	2.2	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.19	1
01363	Dieldrin	60-57-1	0.30 U	0.30	0.38	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.19	1
01363	Endosulfan II	33213-65-9	0.074 U	0.074	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.074 U	0.074	0.38	1
01363	Endrin	72-20-8	0.074 U	0.074	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.26 U	0.26	0.38	1
01363	Endrin Ketone	53494-70-5	0.074 U	0.074	0.38	1
01363	Heptachlor	76-44-8	0.067 U	0.067	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.061 U	0.061	0.19	1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.9	1
01363	Mirex	2385-85-5	0.42 U	0.42	0.42	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.4	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	9.7	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.56 U	0.56	1.9	1
10225	PCB-1232	11141-16-5	0.58 U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.56 U	0.56	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	7.3	0.37	1.9	1
10225	PCB-1260	11096-82-5	5.8	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	15,700	5.62	22.3	1
07914	Boron	7440-42-8	6.12	0.994	5.59	1
01650	Calcium	7440-70-2	3,160	6.85	22.3	1
01654	Iron	7439-89-6	21,500	5.26	22.3	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119986
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	16.8	0.25	2.2	1
01657	Magnesium	7439-95-4	3,640	2.84	11.2	1
06958	Manganese	7439-96-5	261	0.0872	0.559	1
10145	Phosphorus	7723-14-0	378	0.626	11.2	1
01662	Potassium	7440-09-7	2,660	20.1	55.9	1
01667	Sodium	7440-23-5	116	41.7	112	1
07968	Strontium	7440-24-6	32.9	0.0693	0.559	1
06969	Tin	7440-31-5	2.55 J	1.12	11.2	1
06970	Titanium	7440-32-6	1,110	2.12	5.59	5
10146	Zirconium	7440-67-7	3.43 J	0.939	5.59	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.511	0.0670	0.223	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.36	0.0670	0.447	2
06126	Barium	7440-39-3	134	0.121	0.447	2
06127	Beryllium	7440-41-7	0.701	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.898	0.0402	0.112	2
06131	Chromium	7440-47-3	24.9	0.134	0.447	2
06132	Cobalt	7440-48-4	8.22	0.0223	0.112	2
06133	Copper	7440-50-8	40.8	0.0737	0.447	2
06135	Lead	7439-92-1	22.5	0.0116	0.223	2
06138	Molybdenum	7439-98-7	2.90	0.0559	0.112	2
06139	Nickel	7440-02-0	16.4	0.112	0.447	2
06141	Selenium	7782-49-2	0.335 J	0.0447	0.447	2
06142	Silver	7440-22-4	0.0755 J	0.0134	0.112	2
06145	Thallium	7440-28-0	0.323	0.0335	0.112	2
06148	Vanadium	7440-62-2	47.2	0.0246	0.112	2
06149	Zinc	7440-66-6	178	0.626	3.35	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0062 J	0.0031	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.2	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.55 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	191	10.0	10.0	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119986
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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Submitted: 10/22/2010 08:50

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SL051 SDG#: DE002-08BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.		mV	mV	mV	
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.80	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 09:22	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/18/2010 11:16	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/02/2010 22:15	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 10:03	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 20:14	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 10:59	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 10:59	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119986
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SL051 SDG#: DE002-08BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 06:18	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 03:47	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:08	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:45	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 16:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 17:35	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10307243201A	11/04/2010 17:09	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

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



Analysis Report

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REVISED

Sample Description: SL-051-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119987
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,800	19	190	1
04688	Acenaphthylene	208-96-8	1,800	19	190	1
04688	Aniline	62-53-3	1,400	190	560	1
04688	Anthracene	120-12-7	1,900	19	190	1
04688	Benziidine	92-87-5	1,800	J 1,300	3,700	1
04688	Benzo(a)anthracene	56-55-3	1,900	19	190	1
04688	Benzo(a)pyrene	50-32-8	1,700	19	190	1
04688	Benzo(b)fluoranthene	205-99-2	1,700	19	190	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	19	190	1
04688	Benzo(k)fluoranthene	207-08-9	1,600	19	190	1
04688	Benzoic acid	65-85-0	1,500	190	560	1
04688	Benzyl alcohol	100-51-6	1,900	190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	1,900	19	190	1
04688	Butylbenzylphthalate	85-68-7	2,000	19	190	1
04688	Di-n-butylphthalate	84-74-2	1,800	19	190	1
04688	Carbazole	86-74-8	1,800	19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	37	190	1
04688	4-Chloroaniline	106-47-8	990	74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,800	19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,700	19	190	1
04688	2-Chloronaphthalene	91-58-7	2,100	19	190	1
04688	2-Chlorophenol	95-57-8	1,900	19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	37	190	1
04688	Chrysene	218-01-9	1,800	19	190	1
04688	Dibenz(a,h)anthracene	53-70-3	1,800	19	190	1
04688	Dibenzofuran	132-64-9	1,800	19	190	1
04688	1,2-Dichlorobenzene	95-50-1	1,800	19	190	1
04688	1,3-Dichlorobenzene	541-73-1	1,600	19	190	1
04688	1,4-Dichlorobenzene	106-46-7	1,700	19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,500	110	370	1
04688	2,4-Dichlorophenol	120-83-2	1,800	19	190	1
04688	Diethylphthalate	84-66-2	1,700	19	190	1
04688	2,4-Dimethylphenol	105-67-9	1,800	37	190	1
04688	3,5-Dimethylphenol	108-68-9	1,900	37	190	1
04688	Dimethylphthalate	131-11-3	1,700	19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,400	190	560	1
04688	2,4-Dinitrophenol	51-28-5	2,300	740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	1,700	37	190	1
04688	2,6-Dinitrotoluene	606-20-2	1,700	19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	1,900	19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,900	19	370	1
04688	Fluoranthene	206-44-0	1,700	19	190	1
04688	Fluorene	86-73-7	1,800	19	190	1
04688	Hexachlorobenzene	118-74-1	1,900	19	190	1
04688	Hexachlorobutadiene	87-68-3	1,700	74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	2,400	190	560	1
04688	Hexachloroethane	67-72-1	1,600	19	190	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,700	19	190	1
04688	Isophorone	78-59-1	1,700	19	190	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119987
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,800	19	190	1
04688	2-Methylnaphthalene	91-57-6	1,700	19	190	1
04688	2-Methylphenol	95-48-7	1,800	37	190	1
04688	4-Methylphenol	106-44-5	1,800	37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,700	19	190	1
04688	2-Nitroaniline	88-74-4	1,800	19	190	1
04688	3-Nitroaniline	99-09-2	1,700	37	190	1
04688	4-Nitroaniline	100-01-6	1,500	74	190	1
04688	Nitrobenzene	98-95-3	1,700	19	190	1
04688	2-Nitrophenol	88-75-5	1,800	19	190	1
04688	4-Nitrophenol	100-02-7	1,700	190	560	1
04688	N-Nitrosodimethylamine	62-75-9	1,700	37	190	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	1,900	19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,700	19	190	1
04688	Pentachlorophenol	87-86-5	1,700	190	560	1
04688	Phenanthrene	85-01-8	1,800	19	190	1
04688	Phenol	108-95-2	1,900	19	190	1
04688	Pyrene	129-00-0	2,000	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,800	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	1,900	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	37	190	1
GC/MS	Semivolatiles SW-846 8270C SIM		ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	35	0.74	1.9	1
10138	Acenaphthylene	208-96-8	35	0.37	1.9	1
10138	Anthracene	120-12-7	36	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	40	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	38	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	45	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	17	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	41	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	49	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	47	6.7	20	1
10138	Chrysene	218-01-9	41	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	21	0.74	1.9	1
10138	Diethylphthalate	84-66-2	40	6.7	20	1
10138	Dimethylphthalate	131-11-3	39	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	58	6.7	20	1
10138	Fluoranthene	206-44-0	33	0.74	1.9	1
10138	Fluorene	86-73-7	35	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	20	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	37	0.74	1.9	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119987
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	2-Methylnaphthalene	91-57-6	33	0.74	1.9	1
10138	Naphthalene	91-20-3	35	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	31	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	69	6.7	20	1
10138	Phenanthrene	85-01-8	38	0.74	1.9	1
10138	Pyrene	129-00-0	44	0.74	1.9	1

The GC/MS semivolatile internal standard peak areas were outside of QC limits. The background and matrix spike duplicate samples were analyzed and internal standard peak areas were again outside of QC limits, indicating a matrix effect.

Herbicides		SW-846	8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D		94-75-7	7.9		1.3	4.0	1
10401	Dalapon		75-99-0	21		4.9	10	1
10401	2,4-DB		94-82-6	7.6		0.69	1.9	1
10401	Dicamba		1918-00-9	0.86	J	0.45	1.3	1
10401	Dinoseb		88-85-7	1.4	J	0.89	2.7	1
10401	2,4-DP (Dichlorprop)		120-36-5	6.7		0.89	1.9	1
10401	MCPA		94-74-6	1,000		85	280	1
10401	MCPP (Mecoprop)		93-65-2	580		84	280	1
10401	2,4,5-T		93-76-5	0.68		0.092	0.19	1
10401	2,4,5-TP		93-72-1	0.66		0.084	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Pesticides/PCBs		SW-846 8081A	ug/kg		ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.29		0.074	0.19	1
01363	Alpha BHC	319-84-6	0.35		0.038	0.19	1
01363	Beta BHC	319-85-7	0.32		0.067	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.38		0.038	0.19	1
01363	Chlordane	57-74-9	4.2	U	4.2	4.2	1
01363	p,p-DDD	72-54-8	1.5		0.074	0.38	1
01363	p,p-DDE	72-55-9	1.5		0.074	0.38	1
01363	p,p-DDT	50-29-3	2.7		0.074	0.38	1
01363	Delta BHC	319-86-8	0.36		0.040	0.19	1
01363	Dieldrin	60-57-1	0.82		0.074	0.38	1
01363	Endosulfan I	959-98-8	0.32		0.049	0.19	1
01363	Endosulfan II	33213-65-9	0.51		0.074	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.57		0.074	0.38	1
01363	Endrin	72-20-8	0.76		0.074	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.56		0.074	0.38	1
01363	Endrin Ketone	53494-70-5	0.58		0.074	0.38	1
01363	Heptachlor	76-44-8	0.45		0.067	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.27		0.038	0.19	1
01363	Methoxychlor	72-43-5	6.2		0.38	1.9	1
01363	Mirex	2385-85-5	0.074	U	0.074	0.38	1
01363	Toxaphene	8001-35-2	2.5	U	2.5	7.4	1

Sample Description: SL-051-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119987
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	20	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.56 U	0.56	1.9	1
10225	PCB-1232	11141-16-5	0.58 U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.56 U	0.56	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	29	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,700	5.46	21.7	1
07914	Boron	7440-42-8	211	0.965	5.42	1
01650	Calcium	7440-70-2	4,050	6.65	21.7	1
01654	Iron	7439-89-6	25,100	5.11	21.7	1
01656	Lithium	7439-93-2	133	0.24	2.2	1
01657	Magnesium	7439-95-4	4,750	2.76	10.8	1
06958	Manganese	7439-96-5	375	0.0846	0.542	1
10145	Phosphorus	7723-14-0	461	0.607	10.8	1
01662	Potassium	7440-09-7	4,650	19.5	54.2	1
01667	Sodium	7440-23-5	1,280	40.5	108	1
07968	Strontium	7440-24-6	140	0.0673	0.542	1
06969	Tin	7440-31-5	396	1.08	10.8	1
06970	Titanium	7440-32-6	1,410	2.06	5.42	5
10146	Zirconium	7440-67-7	105	0.911	5.42	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	1.26	0.0670	0.223	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.73	0.0670	0.447	2
06126	Barium	7440-39-3	149	0.121	0.447	2
06127	Beryllium	7440-41-7	1.71	0.0179	0.112	2
06128	Cadmium	7440-43-9	2.10	0.0402	0.112	2
06131	Chromium	7440-47-3	43.5	0.134	0.447	2
06132	Cobalt	7440-48-4	71.2	0.0223	0.112	2
06133	Copper	7440-50-8	47.5	0.0737	0.447	2
06135	Lead	7439-92-1	24.9	0.0116	0.223	2
06138	Molybdenum	7439-98-7	20.0	0.0559	0.112	2
06139	Nickel	7440-02-0	31.2	0.112	0.447	2
06141	Selenium	7782-49-2	3.06	0.0447	0.447	2
06142	Silver	7440-22-4	14.9	0.0134	0.112	2
06145	Thallium	7440-28-0	0.936	0.0335	0.112	2
06148	Vanadium	7440-62-2	62.5	0.0246	0.112	2
06149	Zinc	7440-66-6	155	0.626	3.35	2

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119987
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 0.200	mg/kg 0.0032	mg/kg 0.111	1
Wet Chemistry						
07332	11a Anions by 300.0 - Fluoride	EPA 300.0 16984-48-8	mg/kg 12.4	mg/kg 0.89	mg/kg 1.1	1
10147	7a Perchlorate EPA 314.0	EPA 314.0 14797-73-0	ug/kg 639	ug/kg 10.1	ug/kg 33.5	1
05892	3a Cr VI by EPA 7199	SW-846 7199 18540-29-9	mg/kg 40.0	mg/kg 1.1	mg/kg 5.6	5
Wet Chemistry						
11625	28a Moisture Content by 160.3	EPA 160.3 modified n.a.	% 10.5	% 0.50	% 0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 09:48	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/18/2010 11:47	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/02/2010 22:42	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 10:17	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 20:32	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:09	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119987
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:09	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 06:28	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 03:57	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:19	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:19	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:19	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:19	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:49	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 16:48	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 18:23	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10307243201A	11/04/2010 17:36	William L Hamaker Jr	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1



Analysis Report

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REVISED

Sample Description: SL-051-SA5C-SS-0.0-0.5 MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119988
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,700	19	190	1
04688	Acenaphthylene	208-96-8	1,700	19	190	1
04688	Aniline	62-53-3	1,100	190	560	1
04688	Anthracene	120-12-7	1,700	19	190	1
04688	Benziidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzo(a)anthracene	56-55-3	1,700	19	190	1
04688	Benzo(a)pyrene	50-32-8	1,600	19	190	1
04688	Benzo(b)fluoranthene	205-99-2	1,500	19	190	1
04688	Benzo(g,h,i)perylene	191-24-2	1,700	19	190	1
04688	Benzo(k)fluoranthene	207-08-9	1,600	19	190	1
04688	Benzoic acid	65-85-0	1,400	190	560	1
04688	Benzyl alcohol	100-51-6	1,800	190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	1,800	19	190	1
04688	Butylbenzylphthalate	85-68-7	1,800	19	190	1
04688	Di-n-butylphthalate	84-74-2	1,700	19	190	1
04688	Carbazole	86-74-8	1,700	19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	37	190	1
04688	4-Chloroaniline	106-47-8	800	74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,700	19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,500	19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,500	19	190	1
04688	2-Chloronaphthalene	91-58-7	1,900	19	190	1
04688	2-Chlorophenol	95-57-8	1,700	19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,600	37	190	1
04688	Chrysene	218-01-9	1,700	19	190	1
04688	Dibenz(a,h)anthracene	53-70-3	1,700	19	190	1
04688	Dibenzofuran	132-64-9	1,700	19	190	1
04688	1,2-Dichlorobenzene	95-50-1	1,500	19	190	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	19	190	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,200	110	370	1
04688	2,4-Dichlorophenol	120-83-2	1,700	19	190	1
04688	Diethylphthalate	84-66-2	1,600	19	190	1
04688	2,4-Dimethylphenol	105-67-9	1,700	37	190	1
04688	3,5-Dimethylphenol	108-68-9	1,700	37	190	1
04688	Dimethylphthalate	131-11-3	1,700	19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,200	190	560	1
04688	2,4-Dinitrophenol	51-28-5	1,700	J 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	1,500	37	190	1
04688	2,6-Dinitrotoluene	606-20-2	1,600	19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	1,900	19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,800	19	370	1
04688	Fluoranthene	206-44-0	1,600	19	190	1
04688	Fluorene	86-73-7	1,600	19	190	1
04688	Hexachlorobenzene	118-74-1	1,700	19	190	1
04688	Hexachlorobutadiene	87-68-3	1,700	74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	1,800	190	560	1
04688	Hexachloroethane	67-72-1	1,400	19	190	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,600	19	190	1
04688	Isophorone	78-59-1	1,600	19	190	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119988
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,700	19	190	1
04688	2-Methylnaphthalene	91-57-6	1,500	19	190	1
04688	2-Methylphenol	95-48-7	1,700	37	190	1
04688	4-Methylphenol	106-44-5	1,600	37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,600	19	190	1
04688	2-Nitroaniline	88-74-4	1,600	19	190	1
04688	3-Nitroaniline	99-09-2	1,600	37	190	1
04688	4-Nitroaniline	100-01-6	1,400	74	190	1
04688	Nitrobenzene	98-95-3	1,600	19	190	1
04688	2-Nitrophenol	88-75-5	1,600	19	190	1
04688	4-Nitrophenol	100-02-7	1,400	190	560	1
04688	N-Nitrosodimethylamine	62-75-9	1,600	37	190	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,500	19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	1,900	19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,700	19	190	1
04688	Pentachlorophenol	87-86-5	1,400	190	560	1
04688	Phenanthrene	85-01-8	1,700	19	190	1
04688	Phenol	108-95-2	1,700	19	190	1
04688	Pyrene	129-00-0	1,800	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	35	0.74	1.9	1
10138	Acenaphthylene	208-96-8	34	0.37	1.9	1
10138	Anthracene	120-12-7	36	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	47	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	43	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	52	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	19	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	46	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	52	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	42	6.7	20	1
10138	Chrysene	218-01-9	48	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	22	0.74	1.9	1
10138	Diethylphthalate	84-66-2	39	6.7	20	1
10138	Dimethylphthalate	131-11-3	39	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	57	6.7	20	1
10138	Fluoranthene	206-44-0	43	0.74	1.9	1
10138	Fluorene	86-73-7	34	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	22	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	36	0.74	1.9	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119988
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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Chantilly VA 20151

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	2-Methylnaphthalene	91-57-6	33	0.74	1.9	1
10138	Naphthalene	91-20-3	35	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	31	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	70	6.7	20	1
10138	Phenanthrene	85-01-8	42	0.74	1.9	1
10138	Pyrene	129-00-0	61	0.74	1.9	1

The GC/MS semivolatile internal standard peak areas were outside of QC limits. The background and matrix spike samples were analyzed and internal standard peak areas were again outside of QC limits, indicating a matrix effect.

Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	10	1.3	4.0	1
10401	Dalapon	75-99-0	23	4.9	10	1
10401	2,4-DB	94-82-6	9.6	0.69	1.9	1
10401	Dicamba	1918-00-9	1.4	0.45	1.3	1
10401	Dinoseb	88-85-7	1.9	0.89	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	9.5	0.89	1.9	1
10401	MCPA	94-74-6	1,000	85	280	1
10401	MCPP (Mecoprop)	93-65-2	860	84	280	1
10401	2,4,5-T	93-76-5	0.49	0.092	0.19	1
10401	2,4,5-TP	93-72-1	0.88	0.084	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Pesticides/PCBs		SW-846 8081A	ug/kg		ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.31		0.074	0.19	1
01363	Alpha BHC	319-84-6	0.38		0.038	0.19	1
01363	Beta BHC	319-85-7	0.22		0.067	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.37		0.038	0.19	1
01363	Chlordane	57-74-9	4.1	U	4.1	4.1	1
01363	p,p-DDD	72-54-8	1.5		0.074	0.38	1
01363	p,p-DDE	72-55-9	1.6		0.074	0.38	1
01363	p,p-DDT	50-29-3	3.0		0.074	0.38	1
01363	Delta BHC	319-86-8	0.38		0.040	0.19	1
01363	Dieldrin	60-57-1	0.88		0.074	0.38	1
01363	Endosulfan I	959-98-8	0.34		0.049	0.19	1
01363	Endosulfan II	33213-65-9	0.56		0.074	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.66		0.074	0.38	1
01363	Endrin	72-20-8	0.84		0.074	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.68		0.074	0.38	1
01363	Endrin Ketone	53494-70-5	0.57		0.074	0.38	1
01363	Heptachlor	76-44-8	0.48		0.067	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.29		0.038	0.19	1
01363	Methoxychlor	72-43-5	6.6		0.38	1.9	1
01363	Mirex	2385-85-5	0.58		0.074	0.38	1
01363	Toxaphene	8001-35-2	2.5	U	2.5	7.4	1

Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg	

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119988
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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Chantilly VA 20151

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	9.6	1.1	3.7	1
10225	PCB-1016	12674-11-2	21	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.56 U	0.56	1.9	1
10225	PCB-1232	11141-16-5	0.58 U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.56 U	0.56	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	34	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,500	5.51	21.9	1
07914	Boron	7440-42-8	213	0.975	5.48	1
01650	Calcium	7440-70-2	4,070	6.71	21.9	1
01654	Iron	7439-89-6	22,300	5.16	21.9	1
01656	Lithium	7439-93-2	132	0.24	2.2	1
01657	Magnesium	7439-95-4	4,410	2.78	11.0	1
06958	Manganese	7439-96-5	373	0.0854	0.548	1
10145	Phosphorus	7723-14-0	422	0.613	11.0	1
01662	Potassium	7440-09-7	4,560	19.7	54.8	1
01667	Sodium	7440-23-5	1,300	40.9	110	1
07968	Strontium	7440-24-6	144	0.0679	0.548	1
06969	Tin	7440-31-5	401	1.10	11.0	1
06970	Titanium	7440-32-6	1,550	2.08	5.48	5
10146	Zirconium	7440-67-7	116	0.920	5.48	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	1.14	0.0670	0.223	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.41	0.0670	0.447	2
06126	Barium	7440-39-3	145	0.121	0.447	2
06127	Beryllium	7440-41-7	1.67	0.0179	0.112	2
06128	Cadmium	7440-43-9	2.34	0.0402	0.112	2
06131	Chromium	7440-47-3	37.8	0.134	0.447	2
06132	Cobalt	7440-48-4	69.6	0.0223	0.112	2
06133	Copper	7440-50-8	43.1	0.0737	0.447	2
06135	Lead	7439-92-1	23.6	0.0116	0.223	2
06138	Molybdenum	7439-98-7	17.4	0.0559	0.112	2
06139	Nickel	7440-02-0	28.2	0.112	0.447	2
06141	Selenium	7782-49-2	2.93	0.0447	0.447	2
06142	Silver	7440-22-4	14.6	0.0134	0.112	2
06145	Thallium	7440-28-0	0.897	0.0335	0.112	2
06148	Vanadium	7440-62-2	61.1	0.0246	0.112	2
06149	Zinc	7440-66-6	142	0.626	3.35	2

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119988
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
00159	Mercury	7439-97-6	mg/kg	mg/kg	mg/kg	1
			0.197	0.0032	0.111	
Wet Chemistry						
11625	28a Moisture Content by 160.3	EPA 160.3 modified n.a.	%	%	%	1
			10.5	0.50	0.50	

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 10:14	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/18/2010 12:18	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/02/2010 23:10	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 10:32	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 22:05	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:12	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:12	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/07/2010 10:13	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:00	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119988
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:22	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:22	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:22	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:22	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:50	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-051-SA5C-SS-0.0-0.5 DUP Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119989
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,500	5.46	21.7	1
07914	Boron	7440-42-8	3.68 J	0.965	5.42	1
01650	Calcium	7440-70-2	4,130	6.65	21.7	1
01654	Iron	7439-89-6	21,600	5.11	21.7	1
01656	Lithium	7439-93-2	18.1	0.24	2.2	1
01657	Magnesium	7439-95-4	4,240	2.76	10.8	1
06958	Manganese	7439-96-5	299	0.0846	0.542	1
10145	Phosphorus	7723-14-0	452	0.607	10.8	1
01662	Potassium	7440-09-7	2,960	19.5	54.2	1
01667	Sodium	7440-23-5	129	40.5	108	1
07968	Strontium	7440-24-6	32.6	0.0673	0.542	1
06969	Tin	7440-31-5	2.64 J	1.08	10.8	1
06970	Titanium	7440-32-6	1,290	2.06	5.42	5
10146	Zirconium	7440-67-7	5.65	0.911	5.42	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.373	0.0664	0.221	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.87	0.0664	0.443	2
06126	Barium	7440-39-3	133	0.119	0.443	2
06127	Beryllium	7440-41-7	0.626	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.410	0.0398	0.111	2
06131	Chromium	7440-47-3	24.4	0.133	0.443	2
06132	Cobalt	7440-48-4	6.83	0.0221	0.111	2
06133	Copper	7440-50-8	28.5	0.0730	0.443	2
06135	Lead	7439-92-1	18.8	0.0115	0.221	2
06138	Molybdenum	7439-98-7	2.77	0.0553	0.111	2
06139	Nickel	7440-02-0	15.2	0.111	0.443	2
06141	Selenium	7782-49-2	0.327 J	0.0443	0.443	2
06142	Silver	7440-22-4	0.0592 J	0.0133	0.111	2
06145	Thallium	7440-28-0	0.292	0.0332	0.111	2
06148	Vanadium	7440-62-2	46.2	0.0243	0.111	2
06149	Zinc	7440-66-6	126	0.620	3.32	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0082 J	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.8	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.68 J	0.22	1.1	1

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 DUP Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119989
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		ASTM D1498	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	191	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.81	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	28a Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1
11626	28a Moisture Content by 160.3	n.a.	10.7	0.50	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:06	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:06	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 06:24	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 03:53	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:15	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2

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

Sample Description: SL-051-SA5C-SS-0.0-0.5 DUP Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SS-0.0-0.5

LLI Sample # SW 6119989
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:30 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL051 SDG#: DE002-08DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:15	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:15	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:47	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 16:33	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 17:59	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10307243201A	11/04/2010 18:18	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	William C Schwebel	1

Sample Description: SL-052-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SS-0.0-0.5

LLI Sample # SW 6119990
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL052 SDG#: DE002-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

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

Sample Description: SL-052-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SS-0.0-0.5

LLI Sample # SW 6119990
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL052 SDG#: DE002-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.1 J	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.82 J	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.3 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.74 J	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	1.0 J	0.72	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.9	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.7	1
10401	2,4-DB	94-82-6	3.2 U	3.2	3.2	1
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3	1
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8	1
10401	MCPA	94-74-6	190 J	82	270	1
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270	1
10401	2,4,5-T	93-76-5	0.088 U	0.088	0.18	1
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: SL-052-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SS-0.0-0.5

LLI Sample # SW 6119990
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL052 SDG#: DE002-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: 2,4-DB.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	1.4 U	1.4	3.6	1
01363	p,p-DDD	72-54-8	0.074 U	0.074	0.36	1
01363	p,p-DDE	72-55-9	0.39 U	0.39	0.39	1
01363	p,p-DDT	50-29-3	0.71 U	0.71	0.71	1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.19 U	0.19	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.10 U	0.10	0.36	1
01363	Endrin	72-20-8	0.071 U	0.071	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.29 U	0.29	0.36	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.36	1
01363	Heptachlor	76-44-8	0.075 U	0.075	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.062 U	0.062	0.18	1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.8	1
01363	Mirex	2385-85-5	0.29 U	0.29	0.36	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1	1
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	1.5 J	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.3	0.35	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,500	5.34	21.2	1
07914	Boron	7440-42-8	2.34 J	0.945	5.31	1
01650	Calcium	7440-70-2	3,420	6.51	21.2	1
01654	Iron	7439-89-6	18,600	5.00	21.2	1
01656	Lithium	7439-93-2	12.7	0.23	2.1	1
01657	Magnesium	7439-95-4	3,560	2.70	10.6	1
06958	Manganese	7439-96-5	234	0.0829	0.531	1
10145	Phosphorus	7723-14-0	589	0.595	10.6	1

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

Sample Description: SL-052-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SS-0.0-0.5

LLI Sample # SW 6119990
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL052 SDG#: DE002-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,430	19.1	53.1	1
01667	Sodium	7440-23-5	148	39.6	106	1
07968	Strontium	7440-24-6	21.6	0.0659	0.531	1
06969	Tin	7440-31-5	2.00 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,070	2.02	5.31	5
10146	Zirconium	7440-67-7	1.76 J	0.892	5.31	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.260	0.0631	0.210	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.80	0.0631	0.421	2
06126	Barium	7440-39-3	118	0.114	0.421	2
06127	Beryllium	7440-41-7	0.466	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.188	0.0379	0.105	2
06131	Chromium	7440-47-3	20.4	0.126	0.421	2
06132	Cobalt	7440-48-4	6.33	0.0210	0.105	2
06133	Copper	7440-50-8	19.8	0.0694	0.421	2
06135	Lead	7439-92-1	10.3	0.0109	0.210	2
06138	Molybdenum	7439-98-7	2.00	0.0526	0.105	2
06139	Nickel	7440-02-0	11.7	0.105	0.421	2
06141	Selenium	7782-49-2	0.184 J	0.0421	0.421	2
06142	Silver	7440-22-4	0.0460 J	0.0126	0.105	2
06145	Thallium	7440-28-0	0.236	0.0316	0.105	2
06148	Vanadium	7440-62-2	44.7	0.0231	0.105	2
06149	Zinc	7440-66-6	67.7	0.589	3.16	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0095 J	0.0029	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.0	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.66 J	0.21	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	191	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

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

Sample Description: SL-052-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SS-0.0-0.5

LLI Sample # SW 6119990
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL052 SDG#: DE002-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.31	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	6.8	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 15:31	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/19/2010 13:37	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 04:40	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 10:47	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 22:23	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:52	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:52	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1

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

Sample Description: SL-052-SA5C-SS-0.0-0.5 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SS-0.0-0.5

LLI Sample # SW 6119990
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:55 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

SL052 SDG#: DE002-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/06/2010 07:04	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:38	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:56	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:56	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:56	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:56	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:51	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 19:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 21:59	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10307243201A	11/04/2010 18:32	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	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 6

REVISED

Sample Description: DUP-02-SA5C-QC-102110 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5C-QC-102110

LLI Sample # SW 6119991
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

DUP02 SDG#: DE002-10FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

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

Sample Description: DUP-02-SA5C-QC-102110 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5C-QC-102110

LLI Sample # SW 6119991
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

DUP02 SDG#: DE002-10FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	2.0	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	1.9	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	3.6	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	1.1 J	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	1.3 J	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	3.1	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13 J	6.7	20	1
10138	Fluoranthene	206-44-0	2.8	0.74	1.9	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.77 J	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.9	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	1.4 J	0.74	1.9	1
10138	Pyrene	129-00-0	4.0	0.74	1.9	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	4.0	1
10401	Dalapon	75-99-0	4.9 U	4.9	10	1
10401	2,4-DB	94-82-6	2.8 U	2.8	2.8	1
10401	Dicamba	1918-00-9	0.45 U	0.45	1.3	1
10401	Dinoseb	88-85-7	0.89 U	0.89	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.89 U	0.89	1.9	1
10401	MCPA	94-74-6	85 U	85	280	1
10401	MCPP (Mecoprop)	93-65-2	84 U	84	280	1
10401	2,4,5-T	93-76-5	0.092 U	0.092	0.19	1
10401	2,4,5-TP	93-72-1	0.084 U	0.084	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: DUP-02-SA5C-QC-102110 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5C-QC-102110

LLI Sample # SW 6119991
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

DUP02 SDG#: DE002-10FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: 2,4-DB.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.074 U	0.074	0.19	1
01363	Alpha BHC	319-84-6	0.038 U	0.038	0.19	1
01363	Beta BHC	319-85-7	0.067 U	0.067	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.038 U	0.038	0.19	1
01363	Chlordane	57-74-9	1.0 U	1.0	3.8	1
01363	p,p-DDD	72-54-8	1.2 U	1.2	1.2	1
01363	p,p-DDE	72-55-9	0.22 U	0.22	0.38	1
01363	p,p-DDT	50-29-3	0.53 U	0.53	0.53	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.19	1
01363	Dieldrin	60-57-1	0.14 U	0.14	0.38	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.19	1
01363	Endosulfan II	33213-65-9	0.074 U	0.074	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.074 U	0.074	0.38	1
01363	Endrin	72-20-8	0.074 U	0.074	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.29 U	0.29	0.38	1
01363	Endrin Ketone	53494-70-5	0.074 U	0.074	0.38	1
01363	Heptachlor	76-44-8	0.067 U	0.067	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.048 U	0.048	0.19	1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.9	1
01363	Mirex	2385-85-5	0.29 U	0.29	0.38	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.4	1

The TCX surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	7.4	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.56 U	0.56	1.9	1
10225	PCB-1232	11141-16-5	0.58 U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.56 U	0.56	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	5.8	0.37	1.9	1
10225	PCB-1260	11096-82-5	4.3	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg

Sample Description: DUP-02-SA5C-QC-102110 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5C-QC-102110

LLI Sample # SW 6119991
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:40 by AKW

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Chantilly VA 20151

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

DUP02 SDG#: DE002-10FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,000	5.40	21.5	1
07914	Boron	7440-42-8	3.22 J	0.956	5.37	1
01650	Calcium	7440-70-2	2,880	6.59	21.5	1
01654	Iron	7439-89-6	19,300	5.06	21.5	1
01656	Lithium	7439-93-2	16.5	0.24	2.1	1
01657	Magnesium	7439-95-4	3,720	2.73	10.7	1
06958	Manganese	7439-96-5	269	0.0838	0.537	1
10145	Phosphorus	7723-14-0	295	0.602	10.7	1
01662	Potassium	7440-09-7	2,690	19.3	53.7	1
01667	Sodium	7440-23-5	103 J	40.1	107	1
07968	Strontium	7440-24-6	29.0	0.0666	0.537	1
06969	Tin	7440-31-5	2.41 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,170	2.04	5.37	5
10146	Zirconium	7440-67-7	2.55 J	0.902	5.37	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.277	0.0651	0.217	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.32	0.0651	0.434	2
06126	Barium	7440-39-3	131	0.117	0.434	2
06127	Beryllium	7440-41-7	0.659	0.0174	0.108	2
06128	Cadmium	7440-43-9	0.375	0.0391	0.108	2
06131	Chromium	7440-47-3	29.6	0.130	0.434	2
06132	Cobalt	7440-48-4	7.09	0.0217	0.108	2
06133	Copper	7440-50-8	45.2	0.0716	0.434	2
06135	Lead	7439-92-1	15.8	0.0113	0.217	2
06138	Molybdenum	7439-98-7	3.91	0.0542	0.108	2
06139	Nickel	7440-02-0	15.1	0.108	0.434	2
06141	Selenium	7782-49-2	0.299 J	0.0434	0.434	2
06142	Silver	7440-22-4	0.0568 J	0.0130	0.108	2
06145	Thallium	7440-28-0	0.309	0.0325	0.108	2
06148	Vanadium	7440-62-2	45.9	0.0239	0.108	2
06149	Zinc	7440-66-6	131	0.607	3.25	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0032 J	0.0031	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.2	0.89	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.5	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.68 J	0.22	1.1	1

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

Sample Description: DUP-02-SA5C-QC-102110 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5C-QC-102110

LLI Sample # SW 6119991
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:40 by AKW

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Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

DUP02 SDG#: DE002-10FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	189	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.78	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLE026	11/12/2010 20:55	Ryan P Byrne	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10304SLA026	11/19/2010 14:08	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10304SLA026	11/01/2010 14:00	Wanda F Oswald	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLE026	10/30/2010 11:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103030016A	11/03/2010 05:07	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103000005A	11/18/2010 11:01	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020016A	11/11/2010 22:42	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103000005A	10/27/2010 13:45	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020016A	10/30/2010 09:50	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103030016A	11/01/2010 08:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	102995708004	11/05/2010 11:55	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	102995708004	11/05/2010 11:55	Eric L Eby	1

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

Sample Description: DUP-02-SA5C-QC-102110 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5C-QC-102110

LLI Sample # SW 6119991
LLI Group # 1217632
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2010 13:40 by AKW

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

Submitted: 10/22/2010 08:50

Reported: 01/20/2011 13:07

DUP02 SDG#: DE002-10FD*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	102995708004	11/07/2010 10:16	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	102995708004	11/05/2010 04:41	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06126	Barium	SW-846 6020	1	103001026004D	11/05/2010 18:59	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06133	Copper	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06135	Lead	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	103001026004C	11/05/2010 18:59	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	103001026004B	11/05/2010 18:59	Choon Y Tian	2
06142	Silver	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	103001026004A	11/05/2010 18:59	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	102995711004	10/27/2010 09:52	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	102995708004	10/26/2010 20:35	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026004	11/05/2010 15:30	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	102995711004	10/26/2010 23:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10308308201A	11/04/2010 19:36	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10308308202A	11/17/2010 22:23	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10307243201A	11/04/2010 18:45	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10308308201A	11/04/2010 12:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10308308202A	11/04/2010 13:55	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10307243201A	11/03/2010 19:35	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162403A	11/04/2010 11:16	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: 01/20/11 at 01:07 PM

Group Number: 1217632

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: 10302SLE026	Sample number(s): 6119979-6119988, 6119990-6119991								
Acenaphthene	17	U	17.	170	ug/kg	94	76-111		
Acenaphthylene	17	U	17.	170	ug/kg	95	75-122		
Aniline	170		170.	500	ug/kg	68	10-107		
	U								
Anthracene	17	U	17.	170	ug/kg	100	76-112		
Benzidine	1,200		1,200.	3,300	ug/kg	37	15-121		
	U								
Benzo(a)anthracene	17	U	17.	170	ug/kg	96	73-112		
Benzo(a)pyrene	17	U	17.	170	ug/kg	89	69-122		
Benzo(b)fluoranthene	17	U	17.	170	ug/kg	83	61-127		
Benzo(g,h,i)perylene	17	U	17.	170	ug/kg	84	65-122		
Benzo(k)fluoranthene	17	U	17.	170	ug/kg	98	67-125		
Benzoic acid	170		170.	500	ug/kg	87	10-154		
	U								
Benzyl alcohol	170		170.	500	ug/kg	97	68-111		
	U								
4-Bromophenyl-phenylether	17	U	17.	170	ug/kg	96	79-117		
Butylbenzylphthalate	17	U	17.	170	ug/kg	96	75-115		
Di-n-butylphthalate	17	U	17.	170	ug/kg	96	79-112		
Carbazole	17	U	17.	170	ug/kg	100	77-113		
4-Chloro-3-methylphenol	33	U	33.	170	ug/kg	92	74-119		
4-Chloroaniline	67	U	67.	170	ug/kg	40	10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170	ug/kg	92	70-118		
bis(2-Chloroethyl)ether	17	U	17.	170	ug/kg	91	70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170	ug/kg	90	68-131		
2-Chloronaphthalene	17	U	17.	170	ug/kg	109	67-127		
2-Chlorophenol	17	U	17.	170	ug/kg	97	72-112		
4-Chlorophenyl-phenylether	33	U	33.	170	ug/kg	93	79-110		
Chrysene	17	U	17.	170	ug/kg	97	76-113		
Dibenz(a,h)anthracene	17	U	17.	170	ug/kg	84	70-128		
Dibenzofuran	17	U	17.	170	ug/kg	95	79-108		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	91	79-102		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	88	70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	88	74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	51	38-105		
	U								
2,4-Dichlorophenol	17	U	17.	170	ug/kg	95	75-111		
Diethylphthalate	17	U	17.	170	ug/kg	94	76-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	98	72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	97	70-130		
Dimethylphthalate	17	U	17.	170	ug/kg	95	77-109		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	77	53-110		
	U								
2,4-Dinitrophenol	670		670.	2,000	ug/kg	69	37-120		
	U								
2,4-Dinitrotoluene	33	U	33.	170	ug/kg	95	73-115		

*- Outside of specification

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	95		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	101		77-111		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	94		75-117		
Fluoranthene	17 U	17.	170	ug/kg	97		78-116		
Fluorene	17 U	17.	170	ug/kg	95		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	96		78-116		
Hexachlorobutadiene	67 U	67.	170	ug/kg	91		70-112		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	82		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	86		68-105		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	82		64-119		
Isophorone	17 U	17.	170	ug/kg	90		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	96		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	89		76-105		
2-Methylphenol	33 U	33.	170	ug/kg	95		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	95		66-117		
Naphthalene	17 U	17.	170	ug/kg	93		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	96		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	91		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	78		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	92		71-104		
2-Nitrophenol	17 U	17.	170	ug/kg	94		81-114		
4-Nitrophenol	170 U	170.	500	ug/kg	93		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	87		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	87		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	103		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	89		68-130		
Pentachlorophenol	170 U	170.	500	ug/kg	78		35-106		
Phenanthrene	17 U	17.	170	ug/kg	99		77-113		
Phenol	17 U	17.	170	ug/kg	99		58-112		
Pyrene	17 U	17.	170	ug/kg	105		75-115		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	90		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	96		78-111		
Batch number: 10304SLA026	Sample number(s): 6119979-6119988,6119990-6119991								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	98		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	88		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	90		55-120		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	93		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	90		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	94		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	91		44-138		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	91		66-137		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	91		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	101		84-132		
Chrysene	0.33 U	0.33	1.7	ug/kg	95		79-120		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	93		62-142		
Diethylphthalate	6.0 U	6.0	18	ug/kg	99		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	100		70-130		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	89		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	93		78-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	92		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	93		62-141		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	95		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		62-120		

*- Outside of specification

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Naphthalene	0.67	U	0.67	1.7	ug/kg	92		67-120		
N-Nitrosodimethylamine	0.67	U	0.67	1.7	ug/kg	98		39-148		
Di-n-octylphthalate	6.0	U	6.0	18	ug/kg	86		55-176		
Phenanthrene	0.67	U	0.67	1.7	ug/kg	95		75-120		
Pyrene	0.67	U	0.67	1.7	ug/kg	91		56-121		
Batch number: 103030016A Sample number(s): 6119979-6119988, 6119990-6119991										
2,4-D	1.2	U	1.2	3.6	ug/kg	105		40-140		
Dalapon	4.4	U	4.4	9.0	ug/kg	61		24-89		
2,4-DB	0.62	U	0.62	1.7	ug/kg	104		34-138		
Dicamba	0.40	U	0.40	1.2	ug/kg	87		20-164		
Dinoseb	0.80	U	0.80	2.4	ug/kg	8*		10-36		
2,4-DP (Dichlorprop)	0.80	U	0.80	1.7	ug/kg	146*		60-141		
MCPA	76	U	76.	250	ug/kg	82		34-113		
MCPP (Mecoprop)	75	U	75.	250	ug/kg	80		29-154		
2,4,5-T	0.082	U	0.082	0.17	ug/kg	89		33-145		
2,4,5-TP	0.075	U	0.075	0.17	ug/kg	87		48-138		
Batch number: 103060030A Sample number(s): 6119983										
6a Perchlorate EPA 6850	2.1	U	2.1	5.0	ug/kg	95		85-115		
Batch number: 103000005A Sample number(s): 6119979-6119988, 6119990-6119991										
Aldrin	0.066	U	0.066	0.17	ug/kg	100		44-135		
Alpha BHC	0.034	U	0.034	0.17	ug/kg	118		38-130		
Beta BHC	0.060	U	0.060	0.17	ug/kg	109		56-134		
Gamma BHC - Lindane	0.034	U	0.034	0.17	ug/kg	124		46-127		
Chlordane	0.80	U	0.80	3.4	ug/kg					
p,p-DDD	0.066	U	0.066	0.34	ug/kg	187*		60-137		
p,p-DDE	0.066	U	0.066	0.34	ug/kg	145*		59-141		
p,p-DDT	0.066	U	0.066	0.34	ug/kg	178*		54-130		
Delta BHC	0.036	U	0.036	0.17	ug/kg	119		55-144		
Dieldrin	0.066	U	0.066	0.34	ug/kg	136*		65-129		
Endosulfan I	0.044	U	0.044	0.17	ug/kg	121		45-123		
Endosulfan II	0.066	U	0.066	0.34	ug/kg	110		63-127		
Endosulfan Sulfate	0.066	U	0.066	0.34	ug/kg	113		72-138		
Endrin	0.066	U	0.066	0.34	ug/kg	147*		62-129		
Endrin Aldehyde	0.066	U	0.066	0.34	ug/kg	108		55-132		
Endrin Ketone	0.066	U	0.066	0.34	ug/kg	111		69-139		
Heptachlor	0.060	U	0.060	0.17	ug/kg	148*		43-124		
Heptachlor Epoxide	0.034	U	0.034	0.17	ug/kg	103		65-131		
Methoxychlor	0.34	U	0.34	1.7	ug/kg	196*		59-125		
Mirex	0.066	U	0.066	0.34	ug/kg					
Toxaphene	2.2	U	2.2	6.6	ug/kg					
Batch number: 103020016A Sample number(s): 6119979-6119988, 6119990-6119991										
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	90	77	75-125	16	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	88		72-120		
PCB-1221	0.50	U	0.50	1.7	ug/kg					
PCB-1232	0.52	U	0.52	1.7	ug/kg					
PCB-1242	0.50	U	0.50	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.33	U	0.33	1.7	ug/kg	110		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

<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: 102995708004	Sample number(s): 6119979-6119991								
Aluminum	5.03 U	5.03	20.0	mg/kg	101		61-110		
Boron	0.890 U	0.890	5.00	mg/kg	89		78-110		
Calcium	6.13 U	6.13	20.0	mg/kg	100		88-110		
Iron	4.71 U	4.71	20.0	mg/kg	105		61-110		
Lithium	0.35 J	0.22	2.0	mg/kg	101		80-120		
Magnesium	2.54 U	2.54	10.0	mg/kg	97		82-110		
Manganese	0.0780 U	0.0780	0.500	mg/kg	98		81-119		
Phosphorus	1.98 J	0.560	10.0	mg/kg	104		80-120		
Potassium	18.0 U	18.0	50.0	mg/kg	99		78-110		
Sodium	37.3 U	37.3	100	mg/kg	98		87-110		
Strontium	0.0620 U	0.0620	0.500	mg/kg	99		79-121		
Tin	1.24 J	1.00	10.0	mg/kg	99		90-114		
Titanium	0.380 U	0.380	1.00	mg/kg	92		85-115		
Zirconium	0.840 U	0.840	5.00	mg/kg	105		80-120		
Batch number: 102995711004	Sample number(s): 6119979-6119991								
Mercury	0.0028 U	0.0028	0.0983	mg/kg	97		88-123		
Batch number: 103001026004A	Sample number(s): 6119979-6119991								
Antimony	0.0600 U	0.0600	0.200	mg/kg	100		11-208		
Arsenic	0.0600 U	0.0600	0.400	mg/kg	99		80-120		
Beryllium	0.0160 U	0.0160	0.100	mg/kg	105		82-118		
Cadmium	0.0360 U	0.0360	0.100	mg/kg	105		82-118		
Chromium	0.120 U	0.120	0.400	mg/kg	114		80-120		
Cobalt	0.0200 U	0.0200	0.100	mg/kg	98		82-118		
Copper	0.0660 U	0.0660	0.400	mg/kg	105		80-120		
Lead	0.0104 U	0.0104	0.200	mg/kg	101		80-120		
Nickel	0.100 U	0.100	0.400	mg/kg	108		80-120		
Silver	0.0120 U	0.0120	0.100	mg/kg	105		66-134		
Thallium	0.0300 U	0.0300	0.100	mg/kg	109		81-119		
Vanadium	0.0220 U	0.0220	0.100	mg/kg	99		90-110		
Zinc	0.560 U	0.560	3.00	mg/kg	104		78-122		
Batch number: 103001026004B	Sample number(s): 6119979-6119991								
Selenium	0.0400 U	0.0400	0.400	mg/kg	104		79-122		
Batch number: 103001026004C	Sample number(s): 6119979-6119991								
Molybdenum	0.0500 U	0.0500	0.100	mg/kg	111		78-122		
Batch number: 103001026004D	Sample number(s): 6119979-6119991								
Barium	0.108 U	0.108	0.400	mg/kg	107		79-121		
Batch number: 10307243201A	Sample number(s): 6119979-6119987, 6119989-6119991								
3a Cr VI by EPA 7199	0.23 J	0.20	1.0	mg/kg	92		80-120		
Batch number: 10308308201A	Sample number(s): 6119979-6119987, 6119989-6119991								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	102		90-110		
Batch number: 10308308202A	Sample number(s): 6119979-6119987, 6119989-6119991								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	104		85-115		
Batch number: 10298039401B	Sample number(s): 6119979-6119982								
22a pH by 9045C					99		95-105		
Batch number: 10298039402A	Sample number(s): 6119983-6119986, 6119989-6119991								
22a pH by 9045C					99		95-105		

*- Outside of specification

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

<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: 10298182101B Oxidation Reduction Potential	Sample number(s):	6119979-6119980,6119982			98		98-102		
Batch number: 10298182102A Oxidation Reduction Potential	Sample number(s):	6119983-6119986,6119989-6119991			98		98-102		
Batch number: 10313182101A Oxidation Reduction Potential	Sample number(s):	6119981			98		98-102		
Batch number: 10308162403A 28a Moisture Content by 160.3	Sample number(s):	6119979-6119991			100		80-120		
28a Moisture Content by 160.3					100		80-120		
28a Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 10302SLE026	Sample number(s): 6119979-6119988,6119990-6119991 UNSPK: 6119986								
Acenaphthene	96	89	75-115	7	30				
Acenaphthylene	96	90	49-126	7	30				
Aniline	75	59	14-114	23	30				
Anthracene	100	93	75-115	8	30				
Benzidine	20*	0*	35-141	200*	30				
Benzo(a)anthracene	99	90	65-122	10	30				
Benzo(a)pyrene	92	88	57-126	4	30				
Benzo(b)fluoranthene	94	80	59-125	16	30				
Benzo(g,h,i)perylene	97	90	59-127	7	30				
Benzo(k)fluoranthene	89	88	56-132	1	30				
Benzoic acid	81	73	10-173	10	30				
Benzyl alcohol	102	95	55-123	7	30				
4-Bromophenyl-phenylether	102	99	67-129	3	30				
Butylbenzylphthalate	108	97	73-134	11	30				
Di-n-butylphthalate	99	92	67-123	7	30				
Carbazole	97	90	64-120	7	30				
4-Chloro-3-methylphenol	99	85	53-130	15	30				
4-Chloroaniline	53	43	23-95	21	30				
bis(2-Chloroethoxy)methane	95	91	54-117	4	30				
bis(2-Chloroethyl)ether	94	83	60-116	12	30				
bis(2-Chloroisopropyl)ether	92	83	55-142	10	30				
2-Chloronaphthalene	111	103	50-141	8	30				
2-Chlorophenol	101	91	73-121	10	30				
4-Chlorophenyl-phenylether	97	86	64-119	11	30				
Chrysene	98	93	62-128	6	30				
Dibenz(a,h)anthracene	95	90	65-125	6	30				
Dibenzofuran	96	89	71-112	7	30				
1,2-Dichlorobenzene	95	83	66-108	13	30				
1,3-Dichlorobenzene	88	82	63-109	7	30				
1,4-Dichlorobenzene	91	83	53-113	9	30				
3,3'-Dichlorobenzidine	79	64	25-123	20	30				
2,4-Dichlorophenol	99	89	78-117	10	30				

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

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
Diethylphthalate	93	86	66-118	8	30				
2,4-Dimethylphenol	98	90	56-130	8	30				
3,5-Dimethylphenol	100	91	70-130	9	30				
Dimethylphthalate	93	89	64-118	5	30				
4,6-Dinitro-2-methylphenol	73	63	10-148	15	30				
2,4-Dinitrophenol	62	46	20-143	30	30				
2,4-Dinitrotoluene	91	80	57-114	13	30				
2,6-Dinitrotoluene	94	86	69-123	8	30				
1,2-Diphenylhydrazine	103	101	71-129	2	30				
bis(2-Ethylhexyl)phthalate	100	93	63-122	7	30				
Fluoranthene	92	85	59-122	7	30				
Fluorene	95	85	60-125	11	30				
Hexachlorobenzene	102	93	61-111	9	30				
Hexachlorobutadiene	93	90	62-120	3	30				
Hexachlorocyclopentadiene	66	49	10-153	30	30				
Hexachloroethane	89	78	57-109	13	30				
Indeno(1,2,3-cd)pyrene	93	84	61-126	9	30				
Isophorone	90	85	51-118	6	30				
1-Methylnaphthalene	96	89	73-112	7	30				
2-Methylnaphthalene	91	82	76-114	10	30				
2-Methylphenol	99	89	47-142	11	30				
4-Methylphenol	96	88	55-126	9	30				
Naphthalene	94	88	72-116	6	30				
2-Nitroaniline	95	88	67-125	8	30				
3-Nitroaniline	94	85	59-122	9	30				
4-Nitroaniline	81	74	52-112	10	30				
Nitrobenzene	92	86	51-114	7	30				
2-Nitrophenol	96	87	74-115	10	30				
4-Nitrophenol	89	77	39-133	14	30				
N-Nitroso-di-n-propylamine	88	80	60-116	10	30				
N-Nitrosodimethylamine	90	84	47-116	7	30				
N-Nitrosodiphenylamine	105	101	86-145	4	30				
Di-n-octylphthalate	93	89	56-126	5	30				
Pentachlorophenol	92	75	17-149	20	30				
Phenanthrene	98	93	65-125	6	30				
Phenol	100	91	58-126	10	30				
Pyrene	108	95	51-151	13	30				
1,2,4-Trichlorobenzene	96	86	72-115	11	30				
2,4,5-Trichlorophenol	100	90	34-139	11	30				
2,4,6-Trichlorophenol	98	96	49-140	2	30				
Batch number: 10304SLA026 Sample number(s): 6119979-6119988,6119990-6119991 UNSPK: 6119986									
Acenaphthene	94	94	63-105	1	30				
Acenaphthylene	93	92	55-126	2	30				
Anthracene	96	96	46-136	1	30				
Benzo(a)anthracene	86	105	39-144	17	30				
Benzo(a)pyrene	82	97	34-156	14	30				
Benzo(b)fluoranthene	91	109	43-155	14	30				
Benzo(g,h,i)perylene	39	44	33-141	11	30				
Benzo(k)fluoranthene	96	110	42-144	13	30				
Butylbenzylphthalate	132	141*	73-140	7	30				
Di-n-butylphthalate	127	112	78-160	13	30				
Chrysene	80	100	29-156	17	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

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
Dibenz(a,h)anthracene	54	56	41-130	3	30				
Diethylphthalate	107	105	87-131	2	30				
Dimethylphthalate	106	104	74-118	2	30				
Bis(2-Ethylhexyl)phthalate	119	116	39-167	2	30				
Fluoranthene	67	94	26-166	27	30				
Fluorene	93	90	45-121	3	30				
Indeno(1,2,3-cd)pyrene	49	53	21-143	7	30				
1-Methylnaphthalene	99	97	72-123	2	30				
2-Methylnaphthalene	89	87	28-121	2	30				
Naphthalene	95	95	61-102	0	30				
N-Nitrosodimethylamine	82	83	48-113	1	30				
Di-n-octylphthalate	186	188	40-192	1	30				
Phenanthrene	95	106	12-165	10	30				
Pyrene	87	133	15-153	32*	30				

Batch number: 103030016A	Sample number(s): 6119979-6119988, 6119990-6119991 UNSPK: 6119986								
2,4-D	84	112	28-161	28	35				
Dalapon	90*	100*	12-86	10	50				
2,4-DB	54	76	20-170	24	50				
Dicamba	93	152*	33-120	48	50				
Dinoseb	9	12	1-44	32	35				
2,4-DP (Dichlorprop)	72	101	55-141	34	50				
MCPA	64	67	31-184	2	50				
MCPP (Mecoprop)	62	92	16-174	40	50				
2,4,5-T	45	24*	25-132	32	35				
2,4,5-TP	71	95	10-183	29	35				

Batch number: 103060030A	Sample number(s): 6119983 UNSPK: P118541								
6a Perchlorate EPA 6850	104	100	80-120	4	20				

Batch number: 103000005A	Sample number(s): 6119979-6119988, 6119990-6119991 UNSPK: 6119986								
Aldrin	84	90	16-126	7	50				
Alpha BHC	94	103	10-129	9	50				
Beta BHC	47	19	14-147	37	50				
Gamma BHC - Lindane	103	100	10-140	3	50				
p,p-DDD	206*	199*	16-163	4	50				
p,p-DDE	219*	232*	18-161	6	50				
p,p-DDT	374*	412*	10-176	10	50				
Delta BHC	100	106	23-140	6	50				
Dieldrin	111	120	19-154	8	50				
Endosulfan I	88	91	16-137	3	50				
Endosulfan II	73	79	28-154	8	50				
Endosulfan Sulfate	81	94	21-160	15	50				
Endrin	103	114	11-149	10	50				
Endrin Aldehyde	81	98	10-148	20	35				
Endrin Ketone	84	82	22-165	2	50				
Heptachlor	121	130*	13-126	7	50				
Heptachlor Epoxide	77	84	13-157	8	50				
Methoxychlor	160*	170*	32-147	6	50				

Batch number: 103020016A	Sample number(s): 6119979-6119988, 6119990-6119991 UNSPK: 6119986								
PCB-1016	106	112	29-146	6	50				
PCB-1260	127	151*	39-149	14	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

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: 102995708004	Sample number(s): 6119979-6119991 UNSPK: 6119986 BKG: 6119986								
Aluminum	2775 (2)	2659 (2)	75-125	1	20	14,000	14,700	5	20
Boron	94	95	84-115	1	20	5.48	3.29 J	50* (1)	20
Calcium	205 (2)	206 (2)	75-125	0	20	2,830	3,700	27*	20
Iron	3294 (2)	758 (2)	75-125	12	20	19,200	19,300	1	20
Lithium	107	105	82-114	1	20	15.1	16.2	7	20
Magnesium	513 (2)	349 (2)	75-125	8	20	3,260	3,790	15	20
Manganese	209 (2)	204 (2)	75-125	0	20	234	268	14	20
Phosphorus	77	40*	75-125	9	20	338	404	18	20
Potassium	184*	174*	75-125	2	20	2,380	2,650	11	20
Sodium	108	108	75-125	1	20	104	115	10 (1)	20
Strontium	99	101	75-115	3	20	29.5	29.2	1	20
Tin	91	91	80-110	1	20	2.28 J	2.36 J	3 (1)	20
Titanium	275 (2)	398 (2)	75-125	9	20	993	1,160	15	20
Zirconium	94	103	75-125	10	20	3.07 J	5.05	49* (1)	20
Batch number: 102995711004	Sample number(s): 6119979-6119991 UNSPK: 6119986 BKG: 6119986								
Mercury	105	104	65-135	1	20	0.0056 J	0.0073 J	28* (1)	20
Batch number: 103001026004A	Sample number(s): 6119979-6119991 UNSPK: 6119986 BKG: 6119986								
Antimony	56*	47*	75-125	10	20	0.457	0.333	31* (1)	20
Arsenic	106	92	75-125	4	20	5.69	5.25	8	20
Beryllium	113	108	75-125	3	20	0.627	0.560	11	20
Cadmium	107	129*	75-125	11	20	0.804	0.367	75* (1)	20
Chromium	166*	115	75-125	14	20	22.3	21.8	2	20
Cobalt	113	110	75-125	2	20	7.36	6.11	18	20
Copper	60*	20*	75-125	10	20	36.5	25.5	35*	20
Lead	71 (2)	31 (2)	75-125	5	20	20.2	16.8	18	20
Nickel	133*	105	75-125	10	20	14.7	13.6	7	20
Silver	133*	130*	75-125	2	20	0.0676 J	0.0530 J	24* (1)	20
Thallium	137*	128*	75-125	4	20	0.289	0.261	10 (1)	20
Vanadium	137 (2)	125 (2)	75-125	2	20	42.3	41.3	2	20
Zinc	-202 (2)	-319 (2)	75-125	9	20	159	113	34*	20
Batch number: 103001026004B	Sample number(s): 6119979-6119991 UNSPK: 6119986 BKG: 6119986								
Selenium	122	116	75-125	4	20	0.300 J	0.293 J	2 (1)	20
Batch number: 103001026004C	Sample number(s): 6119979-6119991 UNSPK: 6119986 BKG: 6119986								
Molybdenum	153*	130*	75-125	14	20	2.59	2.48	4	20
Batch number: 103001026004D	Sample number(s): 6119979-6119991 UNSPK: 6119986 BKG: 6119986								
Barium	138 (2)	98 (2)	75-125	3	20	120	119	0	20
Batch number: 10307243201A	Sample number(s): 6119979-6119987, 6119989-6119991 UNSPK: 6119986 BKG: 6119986								
3a Cr VI by EPA 7199	88		75-125			0.50 J	0.61 J	20 (1)	20
Batch number: 10308308201A	Sample number(s): 6119979-6119987, 6119989-6119991 UNSPK: 6119986 BKG: 6119986								
11a Anions by 300.0 - Fluoride	66*		80-120			4.6	3.4	31* (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

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 Max	RPD
Batch number: 10308308202A 7a Perchlorate EPA 314.0	115		80-120			9.0	U	9.0	U	0 (1)
Batch number: 10298039401B 22a pH by 9045C						6.39	6.22	3*		1
Batch number: 10298039402A 22a pH by 9045C						7.80	7.81	0		1
Batch number: 10298182101B Oxidation Reduction Potential						252	310	20*		6
Batch number: 10298182102A Oxidation Reduction Potential						191	191	0		6
Batch number: 10313182101A Oxidation Reduction Potential						458	459	0		6
Batch number: 10308162403A 28a Moisture Content by 160.3						10.5	10.7	2		20
28a Moisture Content by 160.3						10.5	10.7	2		20
28a Moisture Content by 160.3						10.5	10.7	2		20

Surrogate Quality Control

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

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 10302SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6119979	90	92	84	86	93	86
6119980	90	92	86	86	93	87
6119981	85	87	82	81	90	88
6119982	88	91	87	85	95	86
6119983	87	89	89	83	90	90
6119984	88	89	88	84	92	89
6119985	82	83	83	82	89	88
6119986	91	91	92	86	93	98
6119987	96	97	93	89	94	94
6119988	88	89	81	83	91	83
6119990	85	88	81	81	89	88
6119991	89	92	89	85	89	91
Blank	84	87	84	82	88	91
LCS	93	94	93	88	92	89
MS	96	97	93	89	94	94
MSD	88	89	81	83	91	83
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

Surrogate Quality Control

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 10304SLA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6119979	105	81	94
6119980	98	90	92
6119981	86	79	88
6119982	100	85	97
6119983	97	86	107
6119984	99	87	109
6119985	96	86	105
6119986	101	91	89
6119987	102	88	92
6119988	100	86	94
6119990	94	83	96
6119991	94	82	93
Blank	90	83	88
LCS	94	84	87
MS	102	88	92
MSD	100	86	94
Limits:	40-130	45-130	45-135

Analysis Name: 12a Pesticides by 8081A
Batch number: 103000005A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6119979	78	90
6119980	67	79
6119981	93	49
6119982	94	78
6119983	67	84
6119984	70	74
6119985	70	87
6119986	96	92
6119987	78	74
6119988	92	78
6119990	85	86
6119991	23*	46
Blank	82	102
LCS	95	108
MS	78	74
MSD	92	78
Limits:	50-130	20-120

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 103020016A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6119979	89	98
6119980	103	95
6119981	100	93
6119982	94	92
6119983	101	105
6119984	89	80

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 01:07 PM

Group Number: 1217632

Surrogate Quality Control

6119985	94	89
6119986	100	88
6119987	95	89
6119988	101	91
6119990	92	95
6119991	98	102
Blank	93	100
LCS	90	101
LCSD	96	102
MS	95	89
MSD	101	91

Limits: 53-139 45-120

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 103030016A
2,4-Dichlorophenylacetic
acid

6119979	110
6119980	110
6119981	111
6119982	109
6119983	123
6119984	117
6119985	111
6119986	104
6119987	95
6119988	126
6119990	94
6119991	75
Blank	70
LCS	91
MS	95
MSD	126

Limits: 36-156

*- Outside of specification

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13013 1217632 6119979-91

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				NOTES:																Other Instructions and Notes							
CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				*Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels @ For hex chrome analysis, lab will measure pH and ORP Perchlorate non-detects to be confirmed using EPA 8350 on samples selected by Lancaster Labs Samplers: (Signature) <i>Thana K. [Signature]</i>																	Other Instructions and Notes						
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	VOC-EPA 8260B	LA-Nitrate EPA 8260B	SVOCs EPA 8270C	PAHs EPA 8270M	TPH g/mgd EPA 8015B	*Metals EPA 6010/800008/7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Pesticides EPA 8091A	*Herbicides EPA 8153	**Nitrate EPA 300.0	**Formaldehyde EPA 8153A	**Hydrazine EPA 8151A	**H-DMA EPA 1625C		**Emergent EPA 8330A	**Opicide EPA 8330A	**pH EPA 3045C	**Alcohol/Phenol/Ethanol EPA 8015	Other Instructions and Notes	
SL-108-SASC-SS-0.0-0.5	10.21.10	0955	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
SL-067-SASC-SS-0.0-0.5	10.21.10	1240	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
SL-068-SASC-SS-0.0-0.5	10.21.10	1255	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
SL-072-SASC-SS-0.0-0.5	10.21.10	1135	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
SL-079-SASC-SS-0.0-0.5	10.21.10	1115	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
SL-080-SASC-SS-0.0-0.5	10.21.10	1100	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
SL-054-SASC-SS-0.0-0.5	10.21.10	1210	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
SL-051-SASC-SS-0.0-0.5--MS	10.21.10	1330	soil		4 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
SL-052-SASC-SS-0.0-0.5	10.21.10	1355	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
DUP02-SASC-QC-102110	10.21.10	1340	soil		2 brass sleeves			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓											
						<i>PB 10/24/10</i>																							
Submitted by: (Signature) <i>Thana K. [Signature]</i> Date/Time 10/21/10 1700						Submitted by: (Signature) _____ Date/Time _____						Submitted by: (Signature) _____ Date/Time _____						Received for Laboratory by: (Signature) _____ Date/Time _____						Laboratory: Lancaster Laboratories, Inc.					
Received by: (Signature) _____ Date/Time _____						Received by: (Signature) _____ Date/Time _____						Received by: (Signature) <i>CR</i> Date/Time 11/10/05						Air Mail No. _____											

Per PB-02510
NLH/KF/10

13013 1217632 6119979-91

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				General Laboratory Procedures																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 Perchlorate non-detects to be confirmed using EPA 8350 on samples selected by Lancaster Labs Samples: (Signature) <i>Chana K. [Signature]</i>						VOC/EPA 8260B	LA-Digester EPA 8240B	SVOCS EPA 8270C	PAHs EPA 8270M	TPH g/mc/d EPA 8018B	*Metals EPA 8210/8200M/7171A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCB EPA 8062	*Methyl Pesticides EPA 8210B	*Perchlorate EPA 8211.0	*Pesticides EPA 8061A	*Herbicides EPA 8151	**Mirex EPA 300.0	**Formaldehyde EPA 8215A	**Methidine EPA 8211A			**% NOMMA EPA 1625C	**Emergents EPA 8330A	**Opicides EPA 8330A
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-108-SA5C-SS-0.0-0.5	10.21.10	0955	soil		2 brass sleeves																					
SL-067-SA5C-SS-0.0-0.5	10.21.10	1140	soil		2 brass sleeves																					
SL-068-SA5C-SS-0.0-0.5	10.21.10	1155	soil		2 brass sleeves																					
SL-072-SA5C-SS-0.0-0.5	10.21.10	1135	soil		2 brass sleeves																					
SL-079-SA5C-SS-0.0-0.5	10.21.10	1115	soil		2 brass sleeves																					
SL-080-SA5C-SS-0.0-0.5	10.21.10	1100	soil		2 brass sleeves																					
SL-054-SA5C-SS-0.0-0.5	10.21.10	1210	soil		2 brass sleeves																					
SL-051-SA5C-SS-0.0-0.5	10.21.10	1330	soil		4 brass sleeves																			MS/MSD sample		
SL-052-SA5C-SS-0.0-0.5	10.21.10	1355	soil		2 brass sleeves																					
DUP02-SA5C-QC-102110	10.21.10	1340	soil		2 brass sleeves																					
<i>RB 10/21/10</i>																										
Released by: (Signature) <i>[Signature]</i> Date/Time 10/21/10 1700						Released by: (Signature) _____ Date/Time _____						Released by: (Signature) _____ Date/Time _____						Received for Laboratory by: (Signature) _____						Laboratory: Lancaster Laboratories, Inc.		
Released by: (Signature) _____ Date/Time _____						Released by: (Signature) _____ Date/Time _____						Released by: (Signature) <i>[Signature]</i> Date/Time 10/21/10 0550						Airtell No. _____								



January 28, 2011

Mr. Todd Burgesser
CDM Federal Services Program
555 17th Street Suite 1100
Denver, CO 80202

Dear Mr. Burgesser:

I am writing to inform you of revised analytical reports that are being issued for the SSFL Area IV Collocated Soil Sampling project.

The correction to the data affects the Quality Control summary for the Perchlorate by LCMSMS analysis only.

During an additional review of this data, it was determined that the 70% to 130%% acceptance window reported for the perchlorate Laboratory Control Spike analysis was incorrect. The acceptance window has been corrected to the project specific window of 85% to 115%. This correction does not change any of the reported sample or quality control results. Additionally the matrix spike acceptance windows were updated to reflect the project windows of 80% to 120% recovery with a %RPD of 20%.

The revised analytical reports reflect these corrections and are attached.

You are a valued client and we apologize for any inconvenience that this incident may have caused. If you have any questions or require further assistance, please call me at 717-656-2300, Ext. 1265. We appreciate your business and look forward to continuing to serve your laboratory needs.

Sincerely,

Jenifer E. Hess
Manager
Environmental Sciences Division

JEH/mcs
Enclosures

cc: Nicole Maljovec

SDG	Group #	Sample #	Sample Description	Collection Date
DE001	1217631	6119976	SL-100-SA5C-SS-0.0-0.5 Grab Soil	10/21/2010 08:35:00
DE001	1217631	6119967	SL-144-SA5C-SS-0.0-0.5 Grab Soil	10/20/2010 13:30:00
DE002	1217632	6119983	SL-079-SA5C-SS-0.0-0.5 Grab Soil	10/21/2010 11:15:00
DE003	1217761	6120956	SL-050-SA5C-SS-0.0-0.5 Soil	10/22/2010 09:10:00
DE003	1217761	6120965	SL-061-SA5C-SS-0.0-0.5 Soil	10/22/2010 10:40:00
DE004	1218260	6124085	SL-008-SA5C-SS-0.0-0.5 Grab Soil	10/26/2010 10:10:00
DE008	1219732	6132121	SL-118-SA5C-SB-4.0-5.0 Grab Soil	11/03/2010 11:50:00
DE008	1219732	6132126	SL-120-SA5C-SB-9.0-10.0 Grab Soil	11/03/2010 14:15:00
DE009	1219878	6132736	SL-134-SA5C-SB-4.0-5.0 Soil	11/04/2010 15:35:00
DE010	1220069	6133890	SL-129-SA5C-SB-4.0-5.0 Grab Soil	11/05/2010 10:50:00
DE012	1220507	6136196	SL-102-SA5C-SB-4.0-5.0 Soil	11/09/2010 10:55:00
DE013	1220753	6137485	SL-111-SA5C-SB-4.0-5.0 Soil	11/10/2010 14:45:00
DE015	1221175	6140325	SL-096-SA5C-SB-4.0-5.0 Soil	11/12/2010 10:50:00
DE017	1221705	6143354	SL-085-SA5C-SB-2.5-3.0 Soil	11/16/2010 15:03:00
DE018	1221905	6144595	SL-079-SA5C-SB-8.5-9.5 Soil	11/17/2010 12:10:00
DE020	1222291	6147113	SL-051-SA5C-SB-3.0-4.0 Soil	11/19/2010 11:45:00
DE021	1222508	6148501	SL-078-SA5C-SB-4.0-5.0 Soil	11/22/2010 15:14:00
DE022	1222698	6149365	SL-077-SA5C-SB-3.0-4.0 Soil	11/23/2010 11:30:00
DE024	1223083	6151502	SL-058-SA5C-SB-3.0-4.0 Soil	11/29/2010 09:45:00
DE027	1223723	6154847	SL-039-SA5C-SB-4.0-5.0 Soil	12/02/2010 14:49:00
DE027	1223723	6154852	SL-040-SA5C-SB-9.0-10.0 Soil	12/02/2010 12:26:00
DE028	1223933	6156144	SL-031-SA5C-SB-9.0-10.0 Soil	12/03/2010 12:44:00
DE029	1224161	6157201	SL-025-SA5C-SB-4.0-5.0 Soil	12/06/2010 15:13:00
DOE01	1217424	6118541	SL-129-SA5C-SS-0.0-0.5 Soil	10/18/2010 10:45:00

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

REVISED

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 20, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/23/2010

Group Number: 1217761

SDG: DE003

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-065-SA5C-SS-0.0-0.5 Soil	6120950
SL-066-SA5C-SS-0.0-0.5 Soil	6120951
SL-076-SA5C-SS-0.0-0.5 Soil	6120952
SL-077-SA5C-SS-0.0-0.5 Soil	6120953
SL-078-SA5C-SS-0.0-0.5 Soil	6120954
SL-049-SA5C-SS-0.0-0.5 Soil	6120955
SL-050-SA5C-SS-0.0-0.5 Soil	6120956
SL-053-SA5C-SS-0.0-0.5 Soil	6120957
SL-086-SA5C-SS-0.0-0.5 Soil	6120958
SL-090-SA5C-SS-0.0-0.5 Soil	6120959
SL-095-SA5C-SS-0.0-0.5 Soil	6120960
SL-096-SA5C-SS-0.0-0.5 Soil	6120961
SL-056-SA5C-SS-0.0-0.5 Soil	6120962
SL-057-SA5C-SS-0.0-0.5 Soil	6120963
SL-060-SA5C-SS-0.0-0.5 Soil	6120964
SL-061-SA5C-SS-0.0-0.5 Soil	6120965
SL-062-SA5C-SS-0.0-0.5 Soil	6120966

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

1 COPY TO
ELECTRONIC

Data Package Group
CDM Federal Services Program

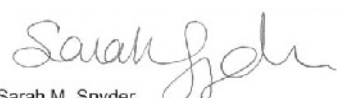
Attn: Todd Burgess

COPY TO

REVISED

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

Respectfully Submitted,


Sarah M. Snyder
Senior Specialist

Sample Description: SL-065-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SS-0.0-0.5

LLI Sample # SW 6120950
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C65 SDG#: DE003-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	19	U 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	19	U 19	380	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1

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

Sample Description: SL-065-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SS-0.0-0.5

LLI Sample # SW 6120950
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C65 SDG#: DE003-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	19	U	190	1
04688	Pentachlorophenol	87-86-5	190	U	570	1
04688	Phenol	108-95-2	19	U	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38	U	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38	U	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.6	U	7.6	10
10138	Acenaphthylene	208-96-8	3.8	U	3.8	10
10138	Anthracene	120-12-7	3.8	U	3.8	10
10138	Benzo(a)anthracene	56-55-3	7.6	U	7.6	10
10138	Benzo(a)pyrene	50-32-8	8.4	J	7.6	10
10138	Benzo(b)fluoranthene	205-99-2	14	J	7.6	10
10138	Benzo(g,h,i)perylene	191-24-2	9.7	J	7.6	10
10138	Benzo(k)fluoranthene	207-08-9	7.6	U	7.6	10
10138	Chrysene	218-01-9	14	J	3.8	10
10138	Dibenz(a,h)anthracene	53-70-3	7.6	U	7.6	10
10138	Fluoranthene	206-44-0	7.6	U	7.6	10
10138	Fluorene	86-73-7	7.6	U	7.6	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.6	U	7.6	10
10138	1-Methylnaphthalene	90-12-0	7.6	U	7.6	10
10138	2-Methylnaphthalene	91-57-6	7.6	U	7.6	10
10138	Naphthalene	91-20-3	7.6	U	7.6	10
10138	N-Nitrosodimethylamine	62-75-9	7.6	U	7.6	10
10138	Phenanthrene	85-01-8	7.6	U	7.6	10
10138	Pyrene	129-00-0	8.4	J	7.6	10

Reporting limits were raised due to interference from the sample matrix.

	Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U	1.4	1
10401	Dalapon	75-99-0	5.0	U	5.0	1
10401	2,4-DB	94-82-6	5.8	U	5.8	1
10401	Dicamba	1918-00-9	0.45	U	0.45	1
10401	Dinoseb	88-85-7	0.91	U	0.91	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.91	U	0.91	1
10401	MCPA	94-74-6	86	U	86	1
10401	MCPP (Mecoprop)	93-65-2	830		85	1
10401	2,4,5-T	93-76-5	0.093	U	0.093	1
10401	2,4,5-TP	93-72-1	0.085	U	0.085	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these

Sample Description: SL-065-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SS-0.0-0.5

LLI Sample # SW 6120950
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C65 SDG#: DE003-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.075 U	0.075	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.068 U	0.068	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19	1
01363	Chlordane	57-74-9	3.5 U	3.5	3.9	1
01363	p,p-DDD	72-54-8	0.27 U	0.27	0.39	1
01363	p,p-DDE	72-55-9	0.53 U	0.53	0.53	1
01363	p,p-DDT	50-29-3	3.2 U	3.2	3.2	5
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19	1
01363	Dieldrin	60-57-1	0.57 U	0.57	0.57	1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19	1
01363	Endosulfan II	33213-65-9	0.093 U	0.093	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.075 U	0.075	0.39	1
01363	Endrin	72-20-8	0.18 U	0.18	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.42 U	0.42	0.42	1
01363	Endrin Ketone	53494-70-5	0.075 U	0.075	0.39	1
01363	Heptachlor	76-44-8	0.068 U	0.068	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.082 U	0.082	0.19	1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9	1
01363	Mirex	2385-85-5	0.57 U	0.57	0.57	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.5	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	4.4	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.57 U	0.57	1.9	1
10225	PCB-1232	11141-16-5	0.59 U	0.59	1.9	1
10225	PCB-1242	53469-21-9	0.57 U	0.57	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	3.4	0.37	1.9	1
10225	PCB-1260	11096-82-5	4.5	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

The surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to

Sample Description: SL-065-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SS-0.0-0.5

LLI Sample # SW 6120950
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C65 SDG#: DE003-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,100	5.64	22.4	1
07914	Boron	7440-42-8	5.53 J	0.998	5.61	1
01650	Calcium	7440-70-2	5,370	6.87	22.4	1
01654	Iron	7439-89-6	22,400	5.28	22.4	1
01656	Lithium	7439-93-2	18.9	0.25	2.2	1
01657	Magnesium	7439-95-4	4,440	2.85	11.2	1
06958	Manganese	7439-96-5	362	0.0875	0.561	1
10145	Phosphorus	7723-14-0	335	0.628	11.2	1
01662	Potassium	7440-09-7	3,750	20.2	56.1	1
01667	Sodium	7440-23-5	117	41.8	112	1
07968	Strontium	7440-24-6	33.7	0.0695	0.561	1
06969	Tin	7440-31-5	2.67 J	1.12	11.2	1
06970	Titanium	7440-32-6	1,530	2.13	5.61	5
10146	Zirconium	7440-67-7	5.96	0.942	5.61	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.166 J	0.0673	0.224	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.29	0.0673	0.449	2
06126	Barium	7440-39-3	122	0.121	0.449	2
06127	Beryllium	7440-41-7	0.659	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.313	0.0404	0.112	2
06131	Chromium	7440-47-3	23.2	0.135	0.449	2
06132	Cobalt	7440-48-4	8.43	0.0224	0.112	2
06133	Copper	7440-50-8	14.1	0.0740	0.449	2
06135	Lead	7439-92-1	26.5	0.0117	0.224	2
06138	Molybdenum	7439-98-7	0.600	0.0561	0.112	2
06139	Nickel	7440-02-0	14.1	0.112	0.449	2
06141	Selenium	7782-49-2	0.152 J	0.0449	0.449	2
06142	Silver	7440-22-4	0.0456 J	0.0135	0.112	2
06145	Thallium	7440-28-0	0.332	0.0336	0.112	2
06148	Vanadium	7440-62-2	45.7	0.0247	0.112	2
06149	Zinc	7440-66-6	67.3	0.628	3.36	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.113	0.0032	0.112	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.6	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	28.4 J	10.2	34.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	

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

Sample Description: SL-065-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SS-0.0-0.5

LLI Sample # SW 6120950
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C65 SDG#: DE003-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
05892	3a Cr VI by EPA 7199	18540-29-9	0.72 J	0.23	1.1	1
ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	276	10.0	10.0	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
SW-846 9045C modified						
00394	22a pH by 9045C	n.a.	7.39	0.0100	0.0100	1
Wet Chemistry						
11624	28a Moisture Content by 160.3	n.a.	11.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/12/2010 12:00	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/17/2010 20:14	Timothy J Trees	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 16:28	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/24/2010 22:03	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/24/2010 22:18	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/04/2010 21:10	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 12:33	Joanne M Gates	1

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

Sample Description: SL-065-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SS-0.0-0.5

LLI Sample # SW 6120950
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C65 SDG#: DE003-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 11:46	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 08:57	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 02:45	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 20:45	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 02:45	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 02:45	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:01	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 11:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 10:34	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 18:28	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1

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



Analysis Report

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

Page 7 of 7

REVISED

Sample Description: SL-065-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SS-0.0-0.5

LLI Sample # SW 6120950
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C65 SDG#: DE003-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404A	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-066-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SS-0.0-0.5

LLI Sample # SW 6120951
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:20 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C66 SDG#: DE003-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	580	1
04688	Benzidine	92-87-5	1,400	U 1,400	3,900	1
04688	Benzoic acid	65-85-0	190	U 190	580	1
04688	Benzyl alcohol	100-51-6	190	U 190	580	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	19	U 19	190	1
04688	Di-n-butylphthalate	84-74-2	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	190	1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580	1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	19	U 19	390	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	39	U 39	190	1
04688	4-Methylphenol	106-44-5	39	U 39	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	39	U 39	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	580	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1

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

Sample Description: SL-066-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SS-0.0-0.5

LLI Sample # SW 6120951
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:20 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C66 SDG#: DE003-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	19	U 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	580	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	190	1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	190	1
GC/MS	Semivolatiles SW-846 8270C SIM		ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.7	U 7.7	19	10
10138	Acenaphthylene	208-96-8	3.9	U 3.9	19	10
10138	Anthracene	120-12-7	3.9	U 3.9	19	10
10138	Benzo(a)anthracene	56-55-3	7.7	U 7.7	19	10
10138	Benzo(a)pyrene	50-32-8	8.9	J 7.7	19	10
10138	Benzo(b)fluoranthene	205-99-2	12	J 7.7	19	10
10138	Benzo(g,h,i)perylene	191-24-2	7.7	U 7.7	19	10
10138	Benzo(k)fluoranthene	207-08-9	7.7	U 7.7	19	10
10138	Chrysene	218-01-9	6.9	J 3.9	19	10
10138	Dibenz(a,h)anthracene	53-70-3	7.7	U 7.7	19	10
10138	Fluoranthene	206-44-0	7.7	U 7.7	19	10
10138	Fluorene	86-73-7	7.7	U 7.7	19	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.7	U 7.7	19	10
10138	1-Methylnaphthalene	90-12-0	7.7	U 7.7	19	10
10138	2-Methylnaphthalene	91-57-6	7.7	U 7.7	19	10
10138	Naphthalene	91-20-3	7.7	U 7.7	19	10
10138	N-Nitrosodimethylamine	62-75-9	7.7	U 7.7	19	10
10138	Phenanthrene	85-01-8	7.7	U 7.7	19	10
10138	Pyrene	129-00-0	7.7	U 7.7	19	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	4.2	1
10401	Dalapon	75-99-0	5.1	U 5.1	10	1
10401	2,4-DB	94-82-6	2.1	U 2.1	2.1	1
10401	Dicamba	1918-00-9	0.46	U 0.46	1.4	1
10401	Dinoseb	88-85-7	0.93	U 0.93	2.8	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.93	U 0.93	2.0	1
10401	MCPA	94-74-6	440	88	290	1
10401	MCPP (Mecoprop)	93-65-2	720	87	290	1
10401	2,4,5-T	93-76-5	0.095	U 0.095	0.20	1
10401	2,4,5-TP	93-72-1	0.087	U 0.087	0.20	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these

Sample Description: SL-066-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SS-0.0-0.5

LLI Sample # SW 6120951
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:20 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C66 SDG#: DE003-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.077 U	0.077	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.070 U	0.070	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19	1
01363	Chlordane	57-74-9	3.0 U	3.0	3.9	1
01363	p,p-DDD	72-54-8	0.19 U	0.19	0.39	1
01363	p,p-DDE	72-55-9	0.80 U	0.80	0.80	1
01363	p,p-DDT	50-29-3	2.6 U	2.6	2.6	1
01363	Delta BHC	319-86-8	0.060 J	0.042	0.19	1
01363	Dieldrin	60-57-1	0.077 U	0.077	0.39	1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19	1
01363	Endosulfan II	33213-65-9	0.11 U	0.11	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.077 U	0.077	0.39	1
01363	Endrin	72-20-8	0.077 U	0.077	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.81 U	0.81	0.81	1
01363	Endrin Ketone	53494-70-5	0.077 U	0.077	0.39	1
01363	Heptachlor	76-44-8	0.070 U	0.070	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.10 U	0.10	0.19	1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9	1
01363	Mirex	2385-85-5	0.29 U	0.29	0.39	1
01363	Toxaphene	8001-35-2	2.6 U	2.6	7.7	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	5.8 U	5.8	19	5
10225	Aroclor 5442	12642-23-8	5.8 U	5.8	19	5
10225	Aroclor 5460	11126-42-4	6.9 J	5.8	19	5
10225	PCB-1016	12674-11-2	1.9 U	1.9	9.9	5
10225	PCB-1221	11104-28-2	2.9 U	2.9	9.9	5
10225	PCB-1232	11141-16-5	3.0 U	3.0	9.9	5
10225	PCB-1242	53469-21-9	2.9 U	2.9	9.9	5
10225	PCB-1248	12672-29-6	1.9 U	1.9	9.9	5
10225	PCB-1254	11097-69-1	16	1.9	9.9	5
10225	PCB-1260	11096-82-5	8.8 J	1.9	9.9	5
10225	PCB-1262	37324-23-5	1.9 U	1.9	9.9	5
10225	PCB-1268	11100-14-4	1.9 U	1.9	9.9	5
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	24,700	5.73	22.8	1
07914	Boron	7440-42-8	6.66	1.01	5.69	1

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

Sample Description: SL-066-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SS-0.0-0.5

LLI Sample # SW 6120951
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:20 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C66 SDG#: DE003-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01650	Calcium	7440-70-2	5,330	6.98	22.8	1
01654	Iron	7439-89-6	24,400	5.36	22.8	1
01656	Lithium	7439-93-2	21.2	0.25	2.3	1
01657	Magnesium	7439-95-4	5,060	2.89	11.4	1
06958	Manganese	7439-96-5	407	0.0888	0.569	1
10145	Phosphorus	7723-14-0	301	0.638	11.4	1
01662	Potassium	7440-09-7	3,990	20.5	56.9	1
01667	Sodium	7440-23-5	107 J	42.5	114	1
07968	Strontium	7440-24-6	30.6	0.0706	0.569	1
06969	Tin	7440-31-5	2.65 J	1.14	11.4	1
06970	Titanium	7440-32-6	1,560	2.16	5.69	5
10146	Zirconium	7440-67-7	5.29 J	0.956	5.69	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.117 J	0.0677	0.226	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.80	0.0677	0.451	2
06126	Barium	7440-39-3	119	0.122	0.451	2
06127	Beryllium	7440-41-7	0.633	0.0180	0.113	2
06128	Cadmium	7440-43-9	0.325	0.0406	0.113	2
06131	Chromium	7440-47-3	27.0	0.135	0.451	2
06132	Cobalt	7440-48-4	7.40	0.0226	0.113	2
06133	Copper	7440-50-8	12.7	0.0744	0.451	2
06135	Lead	7439-92-1	27.9	0.0117	0.226	2
06138	Molybdenum	7439-98-7	0.494	0.0564	0.113	2
06139	Nickel	7440-02-0	15.3	0.113	0.451	2
06141	Selenium	7782-49-2	0.128 J	0.0451	0.451	2
06142	Silver	7440-22-4	0.0352 J	0.0135	0.113	2
06145	Thallium	7440-28-0	0.324	0.0338	0.113	2
06148	Vanadium	7440-62-2	47.5	0.0248	0.113	2
06149	Zinc	7440-66-6	70.4	0.631	3.38	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0576 J	0.0031	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.0	0.93	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.5 U	10.5	34.8	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.65 J	0.23	1.2	1
	ASTM D1498		mV	mV	mV	

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

Sample Description: SL-066-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SS-0.0-0.5

LLI Sample # SW 6120951
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:20 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C66 SDG#: DE003-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	255	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.74	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	13.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/12/2010 10:41	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/17/2010 21:47	Timothy J Trees	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 17:50	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/24/2010 23:01	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/04/2010 21:29	Lindsey K Lafferty	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 12:56	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1

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

Sample Description: SL-066-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SS-0.0-0.5

LLI Sample # SW 6120951
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:20 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C66 SDG#: DE003-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:05	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:20	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 02:48	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 20:47	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 02:48	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 02:48	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:06	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 11:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 12:11	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 18:42	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404A	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-076-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SS-0.0-0.5

LLI Sample # SW 6120952
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:00 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C76 SDG#: DE003-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzo(a)pyrene	50-32-8	27	J 19	190	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	760	U 760	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	570	1

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

Sample Description: SL-076-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SS-0.0-0.5

LLI Sample # SW 6120952
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:00 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C76 SDG#: DE003-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	19 U	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	1.2 J	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	2.2	0.76	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	5.9	0.76	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	3.5	0.76	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	2.2	0.76	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.9 U	6.9	21	1
10138	Di-n-butylphthalate	84-74-2	6.9 U	6.9	21	1
10138	Chrysene	218-01-9	6.2	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.93 J	0.76	1.9	1
10138	Diethylphthalate	84-66-2	6.9 U	6.9	21	1
10138	Dimethylphthalate	131-11-3	6.9 U	6.9	21	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	22	6.9	21	1
10138	Fluoranthene	206-44-0	4.3	0.76	1.9	1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.3 J	0.76	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9	1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.9 U	6.9	21	1
10138	Phenanthrene	85-01-8	3.7	0.76	1.9	1
10138	Pyrene	129-00-0	4.8	0.76	1.9	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.4 U	1.4	4.1	1
10401	Dalapon	75-99-0	5.0 U	5.0	10	1
10401	2,4-DB	94-82-6	4.7 U	4.7	4.7	1
10401	Dicamba	1918-00-9	0.62 J	0.46	1.4	1
10401	Dinoseb	88-85-7	0.92 U	0.92	2.8	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.92 U	0.92	1.9	1
10401	MCPA	94-74-6	310 U	310	310	1
10401	MCPP (Mecoprop)	93-65-2	240 J	86	290	1
10401	2,4,5-T	93-76-5	0.094 U	0.094	0.19	1
10401	2,4,5-TP	93-72-1	0.086 U	0.086	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: SL-076-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SS-0.0-0.5

LLI Sample # SW 6120952
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:00 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C76 SDG#: DE003-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: 2,4-DB and MCPA.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.076 U	0.076	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.069 U	0.069	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19	1
01363	Chlordane	57-74-9	3.3 U	3.3	3.3	1
01363	p,p-DDD	72-54-8	0.52 U	0.52	0.52	1
01363	p,p-DDE	72-55-9	0.84 U	0.84	0.84	1
01363	p,p-DDT	50-29-3	2.6 U	2.6	2.6	1
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19	1
01363	Dieldrin	60-57-1	0.24 U	0.24	0.39	1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19	1
01363	Endosulfan II	33213-65-9	0.076 U	0.076	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.076 U	0.076	0.39	1
01363	Endrin	72-20-8	0.076 U	0.076	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.46 U	0.46	0.46	1
01363	Endrin Ketone	53494-70-5	0.47 U	0.47	0.47	1
01363	Heptachlor	76-44-8	0.069 U	0.069	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.046 U	0.046	0.19	1
01363	Methoxychlor	72-43-5	0.87 U	0.87	1.9	1
01363	Mirex	2385-85-5	0.076 U	0.076	0.39	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.6 J	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.57 U	0.57	1.9	1
10225	PCB-1232	11141-16-5	0.60 U	0.60	1.9	1
10225	PCB-1242	53469-21-9	0.57 U	0.57	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	1.9 J	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.92 J	0.38	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	27,000	5.60	22.3	1
07914	Boron	7440-42-8	5.95	0.991	5.57	1
01650	Calcium	7440-70-2	5,090	6.83	22.3	1

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

Sample Description: SL-076-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SS-0.0-0.5

LLI Sample # SW 6120952
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:00 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C76 SDG#: DE003-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	25,300	5.24	22.3	1
01656	Lithium	7439-93-2	21.0	0.24	2.2	1
01657	Magnesium	7439-95-4	5,300	2.83	11.1	1
06958	Manganese	7439-96-5	438	0.0868	0.557	1
10145	Phosphorus	7723-14-0	209	0.623	11.1	1
01662	Potassium	7440-09-7	3,600	20.0	55.7	1
01667	Sodium	7440-23-5	121	41.5	111	1
07968	Strontium	7440-24-6	34.7	0.0690	0.557	1
06969	Tin	7440-31-5	2.46 J	1.11	11.1	1
06970	Titanium	7440-32-6	1,770	2.12	5.57	5
10146	Zirconium	7440-67-7	6.07	0.935	5.57	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.131 J	0.0681	0.227	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.32	0.0681	0.454	2
06126	Barium	7440-39-3	125	0.123	0.454	2
06127	Beryllium	7440-41-7	0.725	0.0182	0.114	2
06128	Cadmium	7440-43-9	0.278	0.0409	0.114	2
06131	Chromium	7440-47-3	24.9	0.136	0.454	2
06132	Cobalt	7440-48-4	7.16	0.0227	0.114	2
06133	Copper	7440-50-8	12.8	0.0749	0.454	2
06135	Lead	7439-92-1	11.0	0.0118	0.227	2
06138	Molybdenum	7439-98-7	0.571	0.0568	0.114	2
06139	Nickel	7440-02-0	14.6	0.114	0.454	2
06141	Selenium	7782-49-2	0.127 J	0.0454	0.454	2
06142	Silver	7440-22-4	0.0585 J	0.0136	0.114	2
06145	Thallium	7440-28-0	0.296	0.0341	0.114	2
06148	Vanadium	7440-62-2	47.8	0.0250	0.114	2
06149	Zinc	7440-66-6	74.0	0.636	3.41	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.1	0.92	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.67 J	0.23	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	251	10.0	10.0	1

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

Sample Description: SL-076-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SS-0.0-0.5

LLI Sample # SW 6120952
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:00 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C76 SDG#: DE003-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		ASTM D1498	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.71	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	12.8	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 11:37	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 09:43	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 18:18	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/24/2010 23:16	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/04/2010 21:48	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:00	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1

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

Sample Description: SL-076-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SS-0.0-0.5

LLI Sample # SW 6120952
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:00 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C76 SDG#: DE003-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:09	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:31	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 02:58	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 20:52	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 02:58	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 02:58	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:07	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 12:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 12:35	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 18:56	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102A	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402A	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404A	11/04/2010 10:52	William C Schwebel	1

Sample Description: SL-077-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SS-0.0-0.5

LLI Sample # SW 6120953
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C77 SDG#: DE003-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	25	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1

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

Sample Description: SL-077-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SS-0.0-0.5

LLI Sample # SW 6120953
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C77 SDG#: DE003-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.72 J	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.5 J	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	2.1	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	4.6	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.9	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.8	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	26	6.6	20	1
10138	Chrysene	218-01-9	2.4	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	3.3	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.98 J	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	2.7	0.73	1.8	1
10138	Pyrene	129-00-0	3.4	0.73	1.8	1

The GC/MS semivolatile internal standard peak areas were outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.9
10401	Dalapon	75-99-0	4.8 U	4.8	9.8
10401	2,4-DB	94-82-6	2.7 U	2.7	2.7
10401	Dicamba	1918-00-9	0.44 U	0.44	1.3
10401	Dinoseb	88-85-7	0.87 U	0.87	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.87 U	0.87	1.9
10401	MCPA	94-74-6	490	83	270
10401	MCPP (Mecoprop)	93-65-2	170 U	170	270
10401	2,4,5-T	93-76-5	0.090 U	0.090	0.19
10401	2,4,5-TP	93-72-1	0.082 U	0.082	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation

Sample Description: SL-077-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SS-0.0-0.5

LLI Sample # SW 6120953
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C77 SDG#: DE003-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB and MCPA.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	2.3 U	2.3	3.7	1
01363	p,p-DDD	72-54-8	0.56 U	0.56	0.56	1
01363	p,p-DDE	72-55-9	0.80 U	0.80	0.80	1
01363	p,p-DDT	50-29-3	2.1 U	2.1	2.1	1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.072 U	0.072	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.084 U	0.084	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37	1
01363	Endrin	72-20-8	0.072 U	0.072	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.34 U	0.34	0.37	1
01363	Endrin Ketone	53494-70-5	0.33 U	0.33	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.072 U	0.072	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	2.2 U	2.2	7.2	2
10225	Aroclor 5442	12642-23-8	2.2 U	2.2	7.2	2
10225	Aroclor 5460	11126-42-4	2.2 U	2.2	7.2	2
10225	PCB-1016	12674-11-2	0.72 U	0.72	3.7	2
10225	PCB-1221	11104-28-2	1.1 U	1.1	3.7	2
10225	PCB-1232	11141-16-5	1.1 U	1.1	3.7	2
10225	PCB-1242	53469-21-9	1.1 U	1.1	3.7	2
10225	PCB-1248	12672-29-6	0.72 U	0.72	3.7	2
10225	PCB-1254	11097-69-1	2.9 J	0.72	3.7	2
10225	PCB-1260	11096-82-5	1.3 J	0.72	3.7	2
10225	PCB-1262	37324-23-5	0.72 U	0.72	3.7	2
10225	PCB-1268	11100-14-4	0.72 U	0.72	3.7	2

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits. Due to the nature of the sample extract matrix, a dilution was used for the analysis. The reporting limits were raised accordingly.

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

Sample Description: SL-077-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SS-0.0-0.5

LLI Sample # SW 6120953
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C77 SDG#: DE003-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,100	5.38	21.4	1
07914	Boron	7440-42-8	2.29 J	0.953	5.35	1
01650	Calcium	7440-70-2	4,430	6.56	21.4	1
01654	Iron	7439-89-6	21,900	5.04	21.4	1
01656	Lithium	7439-93-2	13.3	0.24	2.1	1
01657	Magnesium	7439-95-4	4,630	2.72	10.7	1
06958	Manganese	7439-96-5	272	0.0835	0.535	1
10145	Phosphorus	7723-14-0	461	0.599	10.7	1
01662	Potassium	7440-09-7	3,410	19.3	53.5	1
01667	Sodium	7440-23-5	272	39.9	107	1
07968	Strontium	7440-24-6	33.0	0.0664	0.535	1
06969	Tin	7440-31-5	1.95 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,430	2.03	5.35	5
10146	Zirconium	7440-67-7	2.51 J	0.899	5.35	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.384	0.0642	0.214	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.24	0.0642	0.428	2
06126	Barium	7440-39-3	91.5	0.116	0.428	2
06127	Beryllium	7440-41-7	0.374	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.158	0.0385	0.107	2
06131	Chromium	7440-47-3	15.6	0.128	0.428	2
06132	Cobalt	7440-48-4	5.93	0.0214	0.107	2
06133	Copper	7440-50-8	12.3	0.0706	0.428	2
06135	Lead	7439-92-1	6.44	0.0111	0.214	2
06138	Molybdenum	7439-98-7	0.325	0.0535	0.107	2
06139	Nickel	7440-02-0	9.01	0.107	0.428	2
06141	Selenium	7782-49-2	0.0579 J	0.0428	0.428	2
06142	Silver	7440-22-4	0.0401 J	0.0128	0.107	2
06145	Thallium	7440-28-0	0.170	0.0321	0.107	2
06148	Vanadium	7440-62-2	41.7	0.0235	0.107	2
06149	Zinc	7440-66-6	47.7	0.599	3.21	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0222 J	0.0030	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.87	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.8	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.64 J	0.22	1.1	1

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

Sample Description: SL-077-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SS-0.0-0.5

LLI Sample # SW 6120953
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C77 SDG#: DE003-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	315	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.00	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	8.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 12:27	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 10:14	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 18:45	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/24/2010 23:30	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/04/2010 22:44	Lindsey K Lafferty	2
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:10	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1

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

Sample Description: SL-077-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SS-0.0-0.5

LLI Sample # SW 6120953
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C77 SDG#: DE003-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:12	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:35	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:01	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 20:54	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:01	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:01	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:08	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 12:19	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 12:59	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 19:10	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404A	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-078-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-078-SA5C-SS-0.0-0.5

LLI Sample # SW 6120954
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:35 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C78 SDG#: DE003-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-078-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-078-SA5C-SS-0.0-0.5

LLI Sample # SW 6120954
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:35 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C78 SDG#: DE003-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.3	U 7.3	18	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	18	10
10138	Anthracene	120-12-7	3.7	U 3.7	18	10
10138	Benzo(a)anthracene	56-55-3	7.3	U 7.3	18	10
10138	Benzo(a)pyrene	50-32-8	7.3	U 7.3	18	10
10138	Benzo(b)fluoranthene	205-99-2	7.3	U 7.3	18	10
10138	Benzo(g,h,i)perylene	191-24-2	7.3	U 7.3	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.3	U 7.3	18	10
10138	Chrysene	218-01-9	6.5	J 3.7	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.3	U 7.3	18	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	190	J 66	200	10
10138	Fluoranthene	206-44-0	7.3	U 7.3	18	10
10138	Fluorene	86-73-7	7.3	U 7.3	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.3	U 7.3	18	10
10138	1-Methylnaphthalene	90-12-0	7.3	U 7.3	18	10
10138	2-Methylnaphthalene	91-57-6	7.3	U 7.3	18	10
10138	Naphthalene	91-20-3	7.3	U 7.3	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.3	U 7.3	18	10
10138	Di-n-octylphthalate	117-84-0	80	J 66	200	10
10138	Phenanthrene	85-01-8	7.3	U 7.3	18	10
10138	Pyrene	129-00-0	7.3	U 7.3	18	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0
10401	Dalapon	75-99-0	4.8	U 4.8	9.9
10401	2,4-DB	94-82-6	7.2	U 7.2	7.2
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9
10401	MCPA	94-74-6	690	83	270
10401	MCPP (Mecoprop)	93-65-2	350	82	270
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19
10401	2,4,5-TP	93-72-1	0.082	U 0.082	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the

Sample Description: SL-078-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-078-SA5C-SS-0.0-0.5

LLI Sample # SW 6120954
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:35 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C78 SDG#: DE003-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.055 J	0.037	0.18	1
01363	Chlordane	57-74-9	3.8 U	3.8	3.8	1
01363	p,p-DDD	72-54-8	0.30 U	0.30	0.37	1
01363	p,p-DDE	72-55-9	0.95 U	0.95	0.95	1
01363	p,p-DDT	50-29-3	1.9 U	1.9	1.9	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.072 U	0.072	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.13 U	0.13	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37	1
01363	Endrin	72-20-8	0.072 U	0.072	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.60 U	0.60	0.60	1
01363	Endrin Ketone	53494-70-5	0.26 U	0.26	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.050 U	0.050	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.072 U	0.072	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	4.1	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	3.3	0.36	1.9	1
10225	PCB-1260	11096-82-5	5.6	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	21,300	5.31	21.1	1

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

Sample Description: SL-078-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
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LLI Sample # SW 6120954
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:35 by AKW

CDM Federal Programs Corp.
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Chantilly VA 20151

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C78 SDG#: DE003-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	5.35	0.939	5.28	1
01650	Calcium	7440-70-2	3,930	6.47	21.1	1
01654	Iron	7439-89-6	22,200	4.97	21.1	1
01656	Lithium	7439-93-2	17.2	0.23	2.1	1
01657	Magnesium	7439-95-4	4,420	2.68	10.6	1
06958	Manganese	7439-96-5	389	0.0823	0.528	1
10145	Phosphorus	7723-14-0	238	0.591	10.6	1
01662	Potassium	7440-09-7	3,940	19.0	52.8	1
01667	Sodium	7440-23-5	96.5 J	39.4	106	1
07968	Strontium	7440-24-6	28.1	0.0654	0.528	1
06969	Tin	7440-31-5	2.30 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,510	2.01	5.28	5
10146	Zirconium	7440-67-7	5.01 J	0.887	5.28	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.211 J	0.0652	0.217	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.95	0.0652	0.435	2
06126	Barium	7440-39-3	107	0.117	0.435	2
06127	Beryllium	7440-41-7	0.622	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.515	0.0391	0.109	2
06131	Chromium	7440-47-3	22.9	0.130	0.435	2
06132	Cobalt	7440-48-4	7.58	0.0217	0.109	2
06133	Copper	7440-50-8	14.6	0.0717	0.435	2
06135	Lead	7439-92-1	19.7	0.0113	0.217	2
06138	Molybdenum	7439-98-7	0.614	0.0543	0.109	2
06139	Nickel	7440-02-0	13.8	0.109	0.435	2
06141	Selenium	7782-49-2	0.128 J	0.0435	0.435	2
06142	Silver	7440-22-4	0.0480 J	0.0130	0.109	2
06145	Thallium	7440-28-0	0.246	0.0326	0.109	2
06148	Vanadium	7440-62-2	42.1	0.0239	0.109	2
06149	Zinc	7440-66-6	68.6	0.609	3.26	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0599 J	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.88	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.6	0.22	1.1	1

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

Sample Description: SL-078-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
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LLI Sample # SW 6120954
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A5C78 SDG#: DE003-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	329	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.17	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 12:53	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/17/2010 23:21	Timothy J Trees	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 19:13	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/24/2010 23:45	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/04/2010 23:02	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:14	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1

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

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A5C78 SDG#: DE003-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:15	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:39	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:04	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 20:56	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:04	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:04	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:09	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 13:04	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 13:23	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 19:31	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404A	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-049-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA5C-SS-0.0-0.5

LLI Sample # SW 6120955
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:35 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C49 SDG#: DE003-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzo(a)pyrene	50-32-8	100	J 18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	140	J 18	180	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	29	J 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	100	J 18	370	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	95	J 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1

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

Sample Description: SL-049-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA5C-SS-0.0-0.5

LLI Sample # SW 6120955
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:35 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C49 SDG#: DE003-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenanthrene	85-01-8	45	J 18	180	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
indeno(1,2,3-cd)pyrene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.3	U 7.3	18	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	18	10
10138	Anthracene	120-12-7	11	J 3.7	18	10
10138	Benzo(a)anthracene	56-55-3	81	7.3	18	10
10138	Benzo(b)fluoranthene	205-99-2	150	7.3	18	10
10138	Benzo(k)fluoranthene	207-08-9	60	7.3	18	10
10138	Chrysene	218-01-9	100	3.7	18	10
10138	Dibenz(a,h)anthracene	53-70-3	11	J 7.3	18	10
10138	Fluoranthene	206-44-0	120	7.3	18	10
10138	Fluorene	86-73-7	7.3	U 7.3	18	10
10138	1-Methylnaphthalene	90-12-0	7.3	U 7.3	18	10
10138	2-Methylnaphthalene	91-57-6	7.3	U 7.3	18	10
10138	Naphthalene	91-20-3	7.3	U 7.3	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.3	U 7.3	18	10
10138	Pyrene	129-00-0	140	7.3	18	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U	1.3	4.0	1
10401	Dalapon	75-99-0	4.8	U	4.8	9.9	1
10401	2,4-DB	94-82-6	2.0		0.68	1.9	1
10401	Dicamba	1918-00-9	0.44	U	0.44	1.3	1
10401	Dinoseb	88-85-7	0.88	U	0.88	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U	0.88	1.9	1
10401	MCPA	94-74-6	89	U	89	270	1
10401	MCPP (Mecoprop)	93-65-2	110	U	110	270	1
10401	2,4,5-T	93-76-5	0.21		0.090	0.19	1
10401	2,4,5-TP	93-72-1	0.082	U	0.082	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: SL-049-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA5C-SS-0.0-0.5

LLI Sample # SW 6120955
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:35 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C49 SDG#: DE003-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
statistical limits of 0-36%, the data is reported. Due to interfering peaks on the chromatogram, the values reported for MCP and MCPA represent the lowest reporting limits attainable.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	4.1 U	4.1	4.1	1
01363	p,p-DDD	72-54-8	0.79 U	0.79	0.79	1
01363	p,p-DDE	72-55-9	0.65 U	0.65	0.65	1
01363	p,p-DDT	50-29-3	0.85 U	0.85	0.85	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.34 J	0.072	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.072 U	0.072	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37	1
01363	Endrin	72-20-8	0.072 U	0.072	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.43 U	0.43	0.43	1
01363	Endrin Ketone	53494-70-5	0.072 U	0.072	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.094 U	0.094	0.18	1
01363	Methoxychlor	72-43-5	0.44 U	0.44	1.8	1
01363	Mirex	2385-85-5	1.4 U	1.4	1.4	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	2.6 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	3.2	0.36	1.9	1
10225	PCB-1260	11096-82-5	1.4 J	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
The surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original

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

Sample Description: SL-049-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA5C-SS-0.0-0.5

LLI Sample # SW 6120955
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:35 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C49 SDG#: DE003-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
extract. Similar results were obtained in both extracts.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,000	5.47	21.7	1
07914	Boron	7440-42-8	3.37 J	0.967	5.43	1
01650	Calcium	7440-70-2	19,300	6.66	21.7	1
01654	Iron	7439-89-6	20,800	5.12	21.7	1
01656	Lithium	7439-93-2	13.8	0.24	2.2	1
01657	Magnesium	7439-95-4	5,190	2.76	10.9	1
06958	Manganese	7439-96-5	281	0.0848	0.543	1
10145	Phosphorus	7723-14-0	635	0.609	10.9	1
01662	Potassium	7440-09-7	3,710	19.6	54.3	1
01667	Sodium	7440-23-5	283	40.5	109	1
07968	Strontium	7440-24-6	51.5	0.0674	0.543	1
06969	Tin	7440-31-5	2.38 J	1.09	10.9	1
06970	Titanium	7440-32-6	1,490	2.06	5.43	5
10146	Zirconium	7440-67-7	4.49 J	0.913	5.43	1
SW-846 6020						
06124	Antimony	7440-36-0	0.261	0.0652	0.217	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	3.49	0.0652	0.435	2
06126	Barium	7440-39-3	113	0.117	0.435	2
06127	Beryllium	7440-41-7	0.293	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.291	0.0391	0.109	2
06131	Chromium	7440-47-3	14.8	0.130	0.435	2
06132	Cobalt	7440-48-4	5.20	0.0217	0.109	2
06133	Copper	7440-50-8	19.3	0.0717	0.435	2
06135	Lead	7439-92-1	30.4	0.0113	0.217	2
06138	Molybdenum	7439-98-7	0.723	0.0543	0.109	2
06139	Nickel	7440-02-0	8.78	0.109	0.435	2
06141	Selenium	7782-49-2	0.0944 J	0.0435	0.435	2
06142	Silver	7440-22-4	0.0438 J	0.0130	0.109	2
06145	Thallium	7440-28-0	0.169	0.0326	0.109	2
06148	Vanadium	7440-62-2	37.1	0.0239	0.109	2
06149	Zinc	7440-66-6	78.9	0.609	3.26	2
SW-846 7471A						
00159	Mercury	7439-97-6	0.0054 J	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.88 U	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.77 J	0.22	1.1	1

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

Sample Description: SL-049-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA5C-SS-0.0-0.5

LLI Sample # SW 6120955
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:35 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C49 SDG#: DE003-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		ASTM D1498	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	295	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.47	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 13:18	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/17/2010 23:52	Timothy J Trees	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	Joella L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 19:40	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/24/2010 23:59	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/04/2010 23:21	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:18	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1

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

Sample Description: SL-049-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA5C-SS-0.0-0.5

LLI Sample # SW 6120955
LLI Group # 1217761
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Project Name: SSFL Area IV Collocated Soil Sampling

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A5C49 SDG#: DE003-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:25	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:43	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 02:27	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 20:34	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 02:27	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 02:27	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:13	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 13:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 13:47	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 19:44	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404A	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-050-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SS-0.0-0.5

LLI Sample # SW 6120956
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C50 SDG#: DE003-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	74	U 74	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Fluoranthene	206-44-0	19	J 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	74	U 74	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1

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

Sample Description: SL-050-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SS-0.0-0.5

LLI Sample # SW 6120956
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C50 SDG#: DE003-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.91 J	0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	1.2 J	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	3.6	0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	3.7	0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	5.6	0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.2 J	0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	2.3	0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	4.3	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.80 J	0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6 U	6.6	20	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.2 J	0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	6.0	0.74	1.8	1
10138	Pyrene	129-00-0	9.2	0.74	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	4.0	1
10401	Dalapon	75-99-0	4.9 U	4.9	10	1
10401	2,4-DB	94-82-6	0.69 U	0.69	1.9	1
10401	Dicamba	1918-00-9	0.44 U	0.44	1.3	1
10401	Dinoseb	88-85-7	0.88 U	0.88	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.88 U	0.88	1.9	1
10401	MCPA	94-74-6	84 U	84	280	1
10401	MCPP (Mecoprop)	93-65-2	83 U	83	280	1
10401	2,4,5-T	93-76-5	0.091 U	0.091	0.19	1
10401	2,4,5-TP	93-72-1	0.083 U	0.083	0.19	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Perchlorate	SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg		
06557	6a Perchlorate EPA 6850	14797-73-0	2.3 U	2.3	5.5	1

Sample Description: SL-050-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SS-0.0-0.5

LLI Sample # SW 6120956
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C50 SDG#: DE003-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.073 U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.038 U	0.038	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.17 J	0.038	0.18	1
01363	Chlordane	57-74-9	0.88 U	0.88	3.8	1
01363	p,p-DDD	72-54-8	0.25 U	0.25	0.38	1
01363	p,p-DDE	72-55-9	0.24 U	0.24	0.38	1
01363	p,p-DDT	50-29-3	0.37 U	0.37	0.38	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.073 U	0.073	0.38	1
01363	Endosulfan I	959-98-8	0.069 U	0.069	0.18	1
01363	Endosulfan II	33213-65-9	0.073 U	0.073	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.38	1
01363	Endrin	72-20-8	0.15 U	0.15	0.38	1
01363	Endrin Aldehyde	7421-93-4	0.30 U	0.30	0.38	1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.38	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.038 U	0.038	0.18	1
01363	Methoxychlor	72-43-5	1.4 U	1.4	1.8	1
01363	Mirex	2385-85-5	0.76 U	0.76	0.76	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.58 U	0.58	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	2.6	0.37	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	24,400	5.51	21.9	1
07914	Boron	7440-42-8	2.79 J	0.975	5.48	1
01650	Calcium	7440-70-2	4,050	6.71	21.9	1
01654	Iron	7439-89-6	24,700	5.16	21.9	1

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

Sample Description: SL-050-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SS-0.0-0.5

LLI Sample # SW 6120956
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:10 by AKW

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14420 Albemarle Point Place
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Chantilly VA 20151

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C50 SDG#: DE003-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	23.8	0.24	2.2	1
01657	Magnesium	7439-95-4	4,410	2.78	11.0	1
06958	Manganese	7439-96-5	215	0.0854	0.548	1
10145	Phosphorus	7723-14-0	183	0.613	11.0	1
01662	Potassium	7440-09-7	2,270	19.7	54.8	1
01667	Sodium	7440-23-5	101 J	40.9	110	1
07968	Strontium	7440-24-6	32.3	0.0679	0.548	1
06969	Tin	7440-31-5	2.76 J	1.10	11.0	1
06970	Titanium	7440-32-6	1,500	2.08	5.48	5
10146	Zirconium	7440-67-7	4.74 J	0.920	5.48	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0917 J	0.0657	0.219	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.91	0.0657	0.438	2
06126	Barium	7440-39-3	91.1	0.118	0.438	2
06127	Beryllium	7440-41-7	0.616	0.0175	0.110	2
06128	Cadmium	7440-43-9	0.0680 J	0.0394	0.110	2
06131	Chromium	7440-47-3	18.3	0.131	0.438	2
06132	Cobalt	7440-48-4	4.63	0.0219	0.110	2
06133	Copper	7440-50-8	9.69	0.0723	0.438	2
06135	Lead	7439-92-1	6.09	0.0114	0.219	2
06138	Molybdenum	7439-98-7	0.386	0.0548	0.110	2
06139	Nickel	7440-02-0	9.52	0.110	0.438	2
06141	Selenium	7782-49-2	0.0500 J	0.0438	0.438	2
06142	Silver	7440-22-4	0.0327 J	0.0131	0.110	2
06145	Thallium	7440-28-0	0.213	0.0329	0.110	2
06148	Vanadium	7440-62-2	36.2	0.0241	0.110	2
06149	Zinc	7440-66-6	42.6	0.613	3.29	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0065 J	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.1	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.77 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	325	10.0	10.0	1

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

Sample Description: SL-050-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SS-0.0-0.5

LLI Sample # SW 6120956
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A5C50 SDG#: DE003-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.92	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	9.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 13:43	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 00:23	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 21:03	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103060030A	11/03/2010 18:52	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 00:14	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/04/2010 23:39	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103060030A	11/03/2010 10:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:21	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1

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

Sample Description: SL-050-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SS-0.0-0.5

LLI Sample # SW 6120956
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 09:10 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C50 SDG#: DE003-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:28	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:47	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:07	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 20:58	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:07	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:07	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:15	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 13:33	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 14:11	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 19:58	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404A	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-053-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SS-0.0-0.5

LLI Sample # SW 6120957
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:55 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C53 SDG#: DE003-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	74	U 74	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	740	U 740	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	24	J 18	370	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	74	U 74	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1

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

Sample Description: SL-053-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SS-0.0-0.5

LLI Sample # SW 6120957
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:55 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C53 SDG#: DE003-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.82 J	0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.71 J	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.78 J	0.74	1.8	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.80 J	0.74	1.8	1
10138	Pyrene	129-00-0	0.98 J	0.74	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	4.0	1
10401	Dalapon	75-99-0	4.9 U	4.9	9.9	1
10401	2,4-DB	94-82-6	0.77 U	0.77	1.9	1
10401	Dicamba	1918-00-9	0.44 U	0.44	1.3	1
10401	Dinoseb	88-85-7	0.88 U	0.88	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.88 U	0.88	1.9	1
10401	MCPA	94-74-6	84 U	84	280	1
10401	MCPP (Mecoprop)	93-65-2	83 U	83	280	1
10401	2,4,5-T	93-76-5	0.090 U	0.090	0.19	1
10401	2,4,5-TP	93-72-1	0.083 U	0.083	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: SL-053-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SS-0.0-0.5

LLI Sample # SW 6120957
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:55 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C53 SDG#: DE003-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: 2,4-DB.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.073 U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	2.6 U	2.6	3.7	1
01363	p,p-DDD	72-54-8	0.13 U	0.13	0.37	1
01363	p,p-DDE	72-55-9	0.11 U	0.11	0.37	1
01363	p,p-DDT	50-29-3	0.12 U	0.12	0.37	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.078 U	0.078	0.37	1
01363	Endosulfan I	959-98-8	0.049 U	0.049	0.18	1
01363	Endosulfan II	33213-65-9	0.073 U	0.073	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.37	1
01363	Endrin	72-20-8	0.073 U	0.073	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.33 U	0.33	0.37	1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.29 U	0.29	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.55 U	0.55	1.9	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.9	1
10225	PCB-1242	53469-21-9	0.55 U	0.55	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.71 J	0.36	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,200	5.38	21.4	1
07914	Boron	7440-42-8	2.65 J	0.953	5.35	1
01650	Calcium	7440-70-2	3,890	6.56	21.4	1

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

Sample Description: SL-053-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SS-0.0-0.5

LLI Sample # SW 6120957
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:55 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C53 SDG#: DE003-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	18,800	5.04	21.4	1
01656	Lithium	7439-93-2	20.6	0.24	2.1	1
01657	Magnesium	7439-95-4	4,010	2.72	10.7	1
06958	Manganese	7439-96-5	253	0.0835	0.535	1
10145	Phosphorus	7723-14-0	304	0.599	10.7	1
01662	Potassium	7440-09-7	2,780	19.3	53.5	1
01667	Sodium	7440-23-5	109	39.9	107	1
07968	Strontium	7440-24-6	19.9	0.0664	0.535	1
06969	Tin	7440-31-5	3.07 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,360	2.03	5.35	5
10146	Zirconium	7440-67-7	3.23 J	0.899	5.35	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0655 J	0.0642	0.214	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.11	0.0642	0.428	2
06126	Barium	7440-39-3	80.2	0.116	0.428	2
06127	Beryllium	7440-41-7	0.513	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.134	0.0385	0.107	2
06131	Chromium	7440-47-3	15.9	0.128	0.428	2
06132	Cobalt	7440-48-4	5.57	0.0214	0.107	2
06133	Copper	7440-50-8	12.3	0.0706	0.428	2
06135	Lead	7439-92-1	5.79	0.0111	0.214	2
06138	Molybdenum	7439-98-7	0.392	0.0535	0.107	2
06139	Nickel	7440-02-0	8.98	0.107	0.428	2
06141	Selenium	7782-49-2	0.0944 J	0.0428	0.428	2
06142	Silver	7440-22-4	0.0304 J	0.0128	0.107	2
06145	Thallium	7440-28-0	0.265	0.0321	0.107	2
06148	Vanadium	7440-62-2	33.0	0.0235	0.107	2
06149	Zinc	7440-66-6	57.6	0.599	3.21	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 J	0.0029	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.5	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.45 J	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	306	10.0	10.0	1

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

Sample Description: SL-053-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SS-0.0-0.5

LLI Sample # SW 6120957
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 08:55 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C53 SDG#: DE003-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		ASTM D1498	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.45	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	9.3	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 14:08	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 00:54	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 21:30	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 00:28	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/04/2010 23:58	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:25	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1

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

Sample Description: SL-053-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SS-0.0-0.5

LLI Sample # SW 6120957
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A5C53 SDG#: DE003-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01645	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:31	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:51	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:10	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 21:00	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:10	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:10	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:16	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 13:48	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 14:35	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 21:21	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404A	11/04/2010 10:52	William C Schwebel	1

Sample Description: SL-086-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SS-0.0-0.5

LLI Sample # SW 6120958
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 15:05 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C86 SDG#: DE003-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	580	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	580	1
04688	Benzyl alcohol	100-51-6	190	U 190	580	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580	1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	27	J 19	380	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	580	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	580	1

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

Sample Description: SL-086-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SS-0.0-0.5

LLI Sample # SW 6120958
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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CDM Federal Programs Corp.
14420 Albemarle Point Place
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Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C86 SDG#: DE003-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	19 U	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.77 U	0.77	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.50 J	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	1.6 J	0.77	1.9	1
10138	Benzo(a)pyrene	50-32-8	2.2	0.77	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	7.5	0.77	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	3.0	0.77	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.77 U	0.77	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.9 U	6.9	21	1
10138	Di-n-butylphthalate	84-74-2	6.9 U	6.9	21	1
10138	Chrysene	218-01-9	9.6	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	1.9 J	0.77	1.9	1
10138	Diethylphthalate	84-66-2	6.9 U	6.9	21	1
10138	Dimethylphthalate	131-11-3	6.9 U	6.9	21	1
10138	Fluoranthene	206-44-0	0.77 U	0.77	1.9	1
10138	Fluorene	86-73-7	0.77 U	0.77	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.1 J	0.77	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.77 U	0.77	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.77 U	0.77	1.9	1
10138	Naphthalene	91-20-3	0.77 U	0.77	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.77 U	0.77	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.9 U	6.9	21	1
10138	Phenanthrene	85-01-8	1.6 J	0.77	1.9	1
10138	Pyrene	129-00-0	2.4	0.77	1.9	1

The GC/MS semivolatile internal standard peak areas were outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4 U	1.4	4.2
10401	Dalapon	75-99-0	5.1 U	5.1	10
10401	2,4-DB	94-82-6	1.8 U	1.8	2.0
10401	Dicamba	1918-00-9	0.46 U	0.46	1.4
10401	Dinoseb	88-85-7	0.92 U	0.92	2.8
10401	2,4-DP (Dichlorprop)	120-36-5	0.92 U	0.92	2.0
10401	MCPA	94-74-6	88 U	88	290
10401	MCPP (Mecoprop)	93-65-2	400 U	400	400
10401	2,4,5-T	93-76-5	0.99 U	0.99	0.99
10401	2,4,5-TP	93-72-1	0.087 U	0.087	0.20

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation

Sample Description: SL-086-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SS-0.0-0.5

LLI Sample # SW 6120958
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 15:05 by AKW

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Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C86 SDG#: DE003-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB and MCP.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.76 U	0.76	1.9	10
01363	Alpha BHC	319-84-6	0.39 U	0.39	1.9	10
01363	Beta BHC	319-85-7	0.69 U	0.69	1.9	10
01363	Gamma BHC - Lindane	58-89-9	0.39 U	0.39	1.9	10
01363	Chlordane	57-74-9	9.2 U	9.2	39	10
01363	p,p-DDD	72-54-8	0.76 U	0.76	3.9	10
01363	p,p-DDE	72-55-9	0.76 U	0.76	3.9	10
01363	p,p-DDT	50-29-3	0.76 U	0.76	3.9	10
01363	Delta BHC	319-86-8	0.42 U	0.42	1.9	10
01363	Dieldrin	60-57-1	4.8 U	4.8	4.8	10
01363	Endosulfan I	959-98-8	0.51 U	0.51	1.9	10
01363	Endosulfan II	33213-65-9	0.95 U	0.95	3.9	10
01363	Endosulfan Sulfate	1031-07-8	0.76 U	0.76	3.9	10
01363	Endrin	72-20-8	2.9 U	2.9	3.9	10
01363	Endrin Aldehyde	7421-93-4	8.3 U	8.3	8.3	10
01363	Endrin Ketone	53494-70-5	0.76 U	0.76	3.9	10
01363	Heptachlor	76-44-8	0.69 U	0.69	1.9	10
01363	Heptachlor Epoxide	1024-57-3	0.39 U	0.39	1.9	10
01363	Methoxychlor	72-43-5	3.9 U	3.9	19	10
01363	Mirex	2385-85-5	0.76 U	0.76	3.9	10
01363	Toxaphene	8001-35-2	25 U	25	76	10

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Due to the nature of the sample extract matrix, a dilution was used for the analysis. The reporting limits were raised accordingly.

Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	29 U	29	95	25
10225	Aroclor 5442	12642-23-8	29 U	29	95	25
10225	Aroclor 5460	11126-42-4	29 U	29	95	25
10225	PCB-1016	12674-11-2	9.5 U	9.5	49	25
10225	PCB-1221	11104-28-2	14 U	14	49	25
10225	PCB-1232	11141-16-5	15 U	15	49	25
10225	PCB-1242	53469-21-9	14 U	14	49	25
10225	PCB-1248	12672-29-6	9.5 U	9.5	49	25
10225	PCB-1254	11097-69-1	9.5 U	9.5	49	25
10225	PCB-1260	11096-82-5	430	9.5	49	25
10225	PCB-1262	37324-23-5	9.5 U	9.5	49	25
10225	PCB-1268	11100-14-4	9.5 U	9.5	49	25

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample Description: SL-086-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SS-0.0-0.5

LLI Sample # SW 6120958
LLI Group # 1217761
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Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 15:05 by AKW

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Submitted: 10/23/2010 09:10

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A5C86 SDG#: DE003-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	32,600	5.75	22.9	1
07914	Boron	7440-42-8	3.39 J	1.02	5.72	1
01650	Calcium	7440-70-2	3,250	7.01	22.9	1
01654	Iron	7439-89-6	27,000	5.38	22.9	1
01656	Lithium	7439-93-2	21.9	0.25	2.3	1
01657	Magnesium	7439-95-4	4,260	2.90	11.4	1
06958	Manganese	7439-96-5	229	0.0892	0.572	1
10145	Phosphorus	7723-14-0	151	0.640	11.4	1
01662	Potassium	7440-09-7	1,920	20.6	57.2	1
01667	Sodium	7440-23-5	243	42.6	114	1
07968	Strontium	7440-24-6	33.0	0.0709	0.572	1
06969	Tin	7440-31-5	3.11 J	1.14	11.4	1
06970	Titanium	7440-32-6	1,520	2.17	5.72	5
10146	Zirconium	7440-67-7	4.49 J	0.960	5.72	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.123 J	0.0693	0.231	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.73	0.0693	0.462	2
06126	Barium	7440-39-3	110	0.125	0.462	2
06127	Beryllium	7440-41-7	0.784	0.0185	0.115	2
06128	Cadmium	7440-43-9	0.150	0.0416	0.115	2
06131	Chromium	7440-47-3	26.3	0.139	0.462	2
06132	Cobalt	7440-48-4	4.68	0.0231	0.115	2
06133	Copper	7440-50-8	7.88	0.0762	0.462	2
06135	Lead	7439-92-1	19.8	0.0120	0.231	2
06138	Molybdenum	7439-98-7	0.515	0.0577	0.115	2
06139	Nickel	7440-02-0	12.2	0.115	0.462	2
06141	Selenium	7782-49-2	0.294 J	0.0462	0.462	2
06142	Silver	7440-22-4	0.0478 J	0.0139	0.115	2
06145	Thallium	7440-28-0	0.285	0.0346	0.115	2
06148	Vanadium	7440-62-2	53.0	0.0254	0.115	2
06149	Zinc	7440-66-6	66.2	0.647	3.46	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0032 U	0.0032	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.2	0.92	1.2	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	15.8 J	10.4	34.6	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.1 J	0.23	1.2	1

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

Sample Description: SL-086-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SS-0.0-0.5

LLI Sample # SW 6120958
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 15:05 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C86 SDG#: DE003-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	340	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.93	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	13.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 14:34	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 10:45	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 21:58	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 00:43	Jamie L Brillhart	10
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/11/2010 14:40	Lindsey K Lafferty	25
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:28	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1

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

Sample Description: SL-086-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SS-0.0-0.5

LLI Sample # SW 6120958
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 15:05 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C86 SDG#: DE003-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:35	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:55	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:13	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 21:02	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:13	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:13	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:17	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 14:02	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 15:00	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 21:35	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-090-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SS-0.0-0.5

LLI Sample # SW 6120959
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C90 SDG#: DE003-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzo(a)pyrene	50-32-8	41	J 19	190	1
04688	Benzo(g,h,i)perylene	191-24-2	50	J 19	190	1
04688	Benzo(k)fluoranthene	207-08-9	44	J 19	190	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Butylbenzylphthalate	85-68-7	72	J 19	190	1
04688	Di-n-butylphthalate	84-74-2	270	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Chrysene	218-01-9	82	J 19	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	Diethylphthalate	84-66-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	Dimethylphthalate	131-11-3	19	U 19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	750	U 750	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Fluoranthene	206-44-0	59	J 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	42	J 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1

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

Sample Description: SL-090-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SS-0.0-0.5

LLI Sample # SW 6120959
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C90 SDG#: DE003-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	19	U 19	190	1
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
indeno(1,2,3-cd)pyrene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.5	U 7.5	19	10
10138	Acenaphthylene	208-96-8	4.5	J 3.8	19	10
10138	Anthracene	120-12-7	12	J 3.8	19	10
10138	Benzo(a)anthracene	56-55-3	29	7.5	19	10
10138	Benzo(b)fluoranthene	205-99-2	110	7.5	19	10
10138	Dibenz(a,h)anthracene	53-70-3	7.5	U 7.5	19	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	500	68	200	10
10138	Fluorene	86-73-7	7.5	U 7.5	19	10
10138	1-Methylnaphthalene	90-12-0	7.5	U 7.5	19	10
10138	2-Methylnaphthalene	91-57-6	7.5	U 7.5	19	10
10138	Naphthalene	91-20-3	7.5	U 7.5	19	10
10138	N-Nitrosodimethylamine	62-75-9	7.5	U 7.5	19	10
10138	Phenanthrene	85-01-8	37	7.5	19	10
10138	Pyrene	129-00-0	68	7.5	19	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U	1.4	4.1	1
10401	Dalapon	75-99-0	5.0	U	5.0	10	1
10401	2,4-DB	94-82-6	14		0.70	1.9	1
10401	Dicamba	1918-00-9	0.84	J	0.45	1.4	1
10401	Dinoseb	88-85-7	2.6	J	0.90	2.7	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.90	U	0.90	1.9	1
10401	MCPA	94-74-6	86	U	86	280	1
10401	MCPP (Mecoprop)	93-65-2	85	U	85	280	1
10401	2,4,5-T	93-76-5	0.80		0.093	0.19	1
10401	2,4,5-TP	93-72-1	0.085	U	0.085	0.19	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: SL-090-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SS-0.0-0.5

LLI Sample # SW 6120959
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C90 SDG#: DE003-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
statistical limits of 0-36%, the data is reported. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.075 U	0.075	0.19	1
01363	Alpha BHC	319-84-6	0.54	0.038	0.19	1
01363	Beta BHC	319-85-7	0.11 J	0.068	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.11 J	0.038	0.19	1
01363	Chlordane	57-74-9	7.3 U	7.3	7.3	1
01363	p,p-DDD	72-54-8	5.2 U	5.2	5.2	1
01363	p,p-DDE	72-55-9	1.5 U	1.5	1.5	1
01363	p,p-DDT	50-29-3	2.4 U	2.4	2.4	1
01363	Delta BHC	319-86-8	0.25	0.041	0.19	1
01363	Dieldrin	60-57-1	0.51 U	0.51	0.51	1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.19	1
01363	Endosulfan II	33213-65-9	0.084 U	0.084	0.38	1
01363	Endosulfan Sulfate	1031-07-8	0.34 U	0.34	0.38	1
01363	Endrin	72-20-8	0.075 U	0.075	0.38	1
01363	Endrin Aldehyde	7421-93-4	11 U	11	11	5
01363	Endrin Ketone	53494-70-5	0.075 U	0.075	0.38	1
01363	Heptachlor	76-44-8	0.12 U	0.12	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.21 U	0.21	0.21	1
01363	Methoxychlor	72-43-5	0.38 U	0.38	1.9	1
01363	Mirex	2385-85-5	0.79	0.075	0.38	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.5	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	2.3 U	2.3	7.5	2
10225	Aroclor 5442	12642-23-8	2.3 U	2.3	7.5	2
10225	Aroclor 5460	11126-42-4	9.6	2.3	7.5	2
10225	PCB-1016	12674-11-2	0.75 U	0.75	3.8	2
10225	PCB-1221	11104-28-2	1.1 U	1.1	3.8	2
10225	PCB-1232	11141-16-5	1.2 U	1.2	3.8	2
10225	PCB-1242	53469-21-9	1.1 U	1.1	3.8	2
10225	PCB-1248	12672-29-6	0.75 U	0.75	3.8	2
10225	PCB-1254	11097-69-1	7.2	0.75	3.8	2
10225	PCB-1260	11096-82-5	6.8	0.75	3.8	2
10225	PCB-1262	37324-23-5	0.75 U	0.75	3.8	2
10225	PCB-1268	11100-14-4	0.75 U	0.75	3.8	2

The stated QC limits are advisory only until sufficient data points

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

Sample Description: SL-090-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SS-0.0-0.5

LLI Sample # SW 6120959
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C90 SDG#: DE003-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
can be obtained to calculate statistical limits.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,300	5.68	22.6	1
07914	Boron	7440-42-8	4.29 J	1.01	5.65	1
01650	Calcium	7440-70-2	19,200	6.93	22.6	1
01654	Iron	7439-89-6	26,200	5.32	22.6	1
01656	Lithium	7439-93-2	18.7	0.25	2.3	1
01657	Magnesium	7439-95-4	4,510	2.87	11.3	1
06958	Manganese	7439-96-5	330	0.0881	0.565	1
10145	Phosphorus	7723-14-0	453	0.633	11.3	1
01662	Potassium	7440-09-7	3,050	20.3	56.5	1
01667	Sodium	7440-23-5	154	42.1	113	1
07968	Strontium	7440-24-6	59.7	0.0701	0.565	1
06969	Tin	7440-31-5	4.27 J	1.13	11.3	1
06970	Titanium	7440-32-6	1,490	2.15	5.65	5
10146	Zirconium	7440-67-7	7.08	0.949	5.65	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	9.42	0.0646	0.215	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.28	0.0646	0.430	2
06126	Barium	7440-39-3	286	0.581	2.15	10
06127	Beryllium	7440-41-7	0.523	0.0172	0.108	2
06128	Cadmium	7440-43-9	2.78	0.0387	0.108	2
06131	Chromium	7440-47-3	37.1	0.129	0.430	2
06132	Cobalt	7440-48-4	6.30	0.0215	0.108	2
06133	Copper	7440-50-8	25.2	0.0710	0.430	2
06135	Lead	7439-92-1	514	0.112	2.15	20
06138	Molybdenum	7439-98-7	2.32	0.0538	0.108	2
06139	Nickel	7440-02-0	21.3	0.108	0.430	2
06141	Selenium	7782-49-2	0.227 J	0.0430	0.430	2
06142	Silver	7440-22-4	0.136	0.0129	0.108	2
06145	Thallium	7440-28-0	0.152	0.0323	0.108	2
06148	Vanadium	7440-62-2	37.9	0.0237	0.108	2
06149	Zinc	7440-66-6	697	3.01	16.1	10
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0141 J	0.0030	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.8	0.90	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	33.9	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	7.1	0.23	1.1	1

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

Sample Description: SL-090-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SS-0.0-0.5

LLI Sample # SW 6120959
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C90 SDG#: DE003-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		ASTM D1498	mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	296	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.49	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	11.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 14:59	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 01:56	Timothy J Trees	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 22:25	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 01:12	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	12/02/2010 21:18	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/05/2010 00:35	Lindsey K Lafferty	2
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:32	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1

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

Sample Description: SL-090-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SS-0.0-0.5

LLI Sample # SW 6120959
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:45 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C90 SDG#: DE003-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:38	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 09:59	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/03/2010 21:05	David K Beck	10
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/03/2010 21:28	David K Beck	20
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 21:04	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:16	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:16	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/03/2010 21:05	David K Beck	10
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201A	11/03/2010 14:17	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202A	11/04/2010 15:24	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 21:49	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201A	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202A	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-095-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-095-SA5C-SS-0.0-0.5

LLI Sample # SW 6120960
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C95 SDG#: DE003-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	580	1
04688	Benzo(a)pyrene	92-87-5	1,400	U 1,400	3,900	1
04688	Benzo(b)fluoranthene	50-32-8	40	J 19	190	1
04688	Benzo(g,h,i)perylene	205-99-2	40	J 19	190	1
04688	Benzo(k)fluoranthene	191-24-2	42	J 19	190	1
04688	Benzoic acid	207-08-9	26	J 19	190	1
04688	Benzyl alcohol	65-85-0	190	U 190	580	1
04688	4-Bromophenyl-phenylether	100-51-6	190	U 190	580	1
04688	Carbazole	101-55-3	19	U 19	190	1
04688	4-Chloro-3-methylphenol	86-74-8	19	U 19	190	1
04688	4-Chloroaniline	59-50-7	39	U 39	190	1
04688	bis(2-Chloroethoxy)methane	106-47-8	78	U 78	190	1
04688	bis(2-Chloroethyl)ether	111-91-1	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	111-44-4	19	U 19	190	1
04688	2-Chloronaphthalene	39638-32-9	19	U 19	190	1
04688	2-Chlorophenol	91-58-7	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	95-57-8	19	U 19	190	1
04688	Chrysene	7005-72-3	39	U 39	190	1
04688	Dibenzofuran	218-01-9	40	J 19	190	1
04688	1,2-Dichlorobenzene	132-64-9	19	U 19	190	1
04688	1,3-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	106-46-7	19	U 19	190	1
04688	2,4-Dichlorophenol	91-94-1	120	U 120	390	1
04688	2,4-Dimethylphenol	120-83-2	19	U 19	190	1
04688	3,5-Dimethylphenol	105-67-9	39	U 39	190	1
04688	4,6-Dinitro-2-methylphenol	108-68-9	39	U 39	190	1
04688	2,4-Dinitrophenol	534-52-1	190	U 190	580	1
04688	2,4-Dinitrotoluene	51-28-5	780	U 780	2,300	1
04688	2,6-Dinitrotoluene	121-14-2	39	U 39	190	1
04688	1,2-Diphenylhydrazine	606-20-2	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	122-66-7	19	U 19	190	1
04688	Fluoranthene	117-81-7	35	J 19	390	1
04688	Hexachlorobenzene	206-44-0	93	J 19	190	1
04688	Hexachlorobutadiene	118-74-1	19	U 19	190	1
04688	Hexachlorocyclopentadiene	87-68-3	78	U 78	190	1
04688	Hexachloroethane	77-47-4	190	U 190	580	1
04688	Indeno(1,2,3-cd)pyrene	67-72-1	19	U 19	190	1
04688	Isophorone	193-39-5	40	J 19	190	1
04688	2-Methylphenol	78-59-1	19	U 19	190	1
04688	4-Methylphenol	95-48-7	39	U 39	190	1
04688	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.	106-44-5	39	U 39	190	1
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	39	U 39	190	1
04688	4-Nitroaniline	100-01-6	78	U 78	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1

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

Sample Description: SL-095-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-095-SA5C-SS-0.0-0.5

LLI Sample # SW 6120960
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C95 SDG#: DE003-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	4-Nitrophenol	100-02-7	190	U 190	580	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	580	1
04688	Phenanthrene	85-01-8	100	J 19	190	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	Pyrene	129-00-0	82	J 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	190	1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	190	1

The LCS recovery is outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
indeno(1,2,3-cd)pyrene

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	2.1	0.78	1.9	1
10138	Acenaphthylene	208-96-8	0.39	U 0.39	1.9	1
10138	Anthracene	120-12-7	2.3	0.39	1.9	1
10138	Benzo(a)anthracene	56-55-3	9.2	0.78	1.9	1
10138	Butylbenzylphthalate	85-68-7	44	7.0	21	1
10138	Di-n-butylphthalate	84-74-2	7.0	U 7.0	21	1
10138	Dibenz(a,h)anthracene	53-70-3	1.0	J 0.78	1.9	1
10138	Diethylphthalate	84-66-2	7.0	U 7.0	21	1
10138	Dimethylphthalate	131-11-3	7.0	U 7.0	21	1
10138	Fluorene	86-73-7	1.1	J 0.78	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.78	U 0.78	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.78	U 0.78	1.9	1
10138	Naphthalene	91-20-3	0.78	U 0.78	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.78	U 0.78	1.9	1
10138	Di-n-octylphthalate	117-84-0	7.0	U 7.0	21	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U	1.4	4.2	1
10401	Dalapon	75-99-0	5.1	U	5.1	10	1
10401	2,4-DB	94-82-6	0.93	U	0.93	2.0	1
10401	Dicamba	1918-00-9	0.47	U	0.47	1.4	1
10401	Dinoseb	88-85-7	0.93	U	0.93	2.8	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.93	U	0.93	2.0	1
10401	MCPA	94-74-6	130	U	130	290	1
10401	MCPP (Mecoprop)	93-65-2	87	U	87	290	1
10401	2,4,5-T	93-76-5	0.096	U	0.096	0.20	1
10401	2,4,5-TP	93-72-1	0.087	U	0.087	0.20	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Sample Description: SL-095-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-095-SA5C-SS-0.0-0.5

LLI Sample # SW 6120960
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C95 SDG#: DE003-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB and MCPA.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.077 U	0.077	0.19	1
01363	Alpha BHC	319-84-6	0.040 U	0.040	0.19	1
01363	Beta BHC	319-85-7	0.070 U	0.070	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.040 U	0.040	0.19	1
01363	Chlordane	57-74-9	1.6 U	1.6	4.0	1
01363	p,p-DDD	72-54-8	0.077 U	0.077	0.40	1
01363	p,p-DDE	72-55-9	0.17 U	0.17	0.40	1
01363	p,p-DDT	50-29-3	0.077 U	0.077	0.40	1
01363	Delta BHC	319-86-8	0.042 U	0.042	0.19	1
01363	Dieldrin	60-57-1	0.12 U	0.12	0.40	1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19	1
01363	Endosulfan II	33213-65-9	0.077 U	0.077	0.40	1
01363	Endosulfan Sulfate	1031-07-8	0.077 U	0.077	0.40	1
01363	Endrin	72-20-8	0.077 U	0.077	0.40	1
01363	Endrin Aldehyde	7421-93-4	0.21 U	0.21	0.40	1
01363	Endrin Ketone	53494-70-5	0.077 U	0.077	0.40	1
01363	Heptachlor	76-44-8	0.070 U	0.070	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.040 U	0.040	0.19	1
01363	Methoxychlor	72-43-5	0.40 U	0.40	1.9	1
01363	Mirex	2385-85-5	0.077 U	0.077	0.40	1
01363	Toxaphene	8001-35-2	2.6 U	2.6	7.7	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.58 U	0.58	2.0	1
10225	PCB-1232	11141-16-5	0.61 U	0.61	2.0	1
10225	PCB-1242	53469-21-9	0.58 U	0.58	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.54 J	0.38	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample Description: SL-095-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-095-SA5C-SS-0.0-0.5

LLI Sample # SW 6120960
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C95 SDG#: DE003-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,200	5.69	22.6	1
07914	Boron	7440-42-8	4.61 J	1.01	5.66	1
01650	Calcium	7440-70-2	4,300	6.94	22.6	1
01654	Iron	7439-89-6	27,800	5.33	22.6	1
01656	Lithium	7439-93-2	23.2	0.25	2.3	1
01657	Magnesium	7439-95-4	4,970	2.87	11.3	1
06958	Manganese	7439-96-5	709	0.0883	0.566	1
10145	Phosphorus	7723-14-0	178	0.634	11.3	1
01662	Potassium	7440-09-7	2,440	20.4	56.6	1
01667	Sodium	7440-23-5	619	42.2	113	1
07968	Strontium	7440-24-6	40.7	0.0702	0.566	1
06969	Tin	7440-31-5	2.91 J	1.13	11.3	1
06970	Titanium	7440-32-6	1,480	2.15	5.66	5
10146	Zirconium	7440-67-7	5.40 J	0.951	5.66	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.179 J	0.0692	0.231	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.84	0.0692	0.462	2
06126	Barium	7440-39-3	143	0.125	0.462	2
06127	Beryllium	7440-41-7	0.756	0.0185	0.115	2
06128	Cadmium	7440-43-9	0.207	0.0415	0.115	2
06131	Chromium	7440-47-3	28.7	0.138	0.462	2
06132	Cobalt	7440-48-4	8.46	0.0231	0.115	2
06133	Copper	7440-50-8	15.3	0.0762	0.462	2
06135	Lead	7439-92-1	9.18	0.0120	0.231	2
06138	Molybdenum	7439-98-7	0.578	0.0577	0.115	2
06139	Nickel	7440-02-0	15.5	0.115	0.462	2
06141	Selenium	7782-49-2	0.242 J	0.0462	0.462	2
06142	Silver	7440-22-4	0.0469 J	0.0138	0.115	2
06145	Thallium	7440-28-0	0.293	0.0346	0.115	2
06148	Vanadium	7440-62-2	46.5	0.0254	0.115	2
06149	Zinc	7440-66-6	57.3	0.646	3.46	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0031 U	0.0031	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	7.7	0.93	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.7 J	10.5	35.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.61 J	0.23	1.2	1

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

Sample Description: SL-095-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-095-SA5C-SS-0.0-0.5

LLI Sample # SW 6120960
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C95 SDG#: DE003-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	303	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	8.39	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	14.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 15:51	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 02:28	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 22:53	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 01:26	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/05/2010 00:54	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:35	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1

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

Sample Description: SL-095-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-095-SA5C-SS-0.0-0.5

LLI Sample # SW 6120960
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C95 SDG#: DE003-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:41	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 10:03	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:19	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 21:07	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:19	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:19	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201B	11/03/2010 14:32	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202B	11/17/2010 23:11	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/02/2010 21:57	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201B	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202B	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-096-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SS-0.0-0.5

LLI Sample # SW 6120961
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:25 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C96 SDG#: DE003-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180	1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	Diethylphthalate	84-66-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	Dimethylphthalate	131-11-3	18	U 18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	18	U 18	370	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-096-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SS-0.0-0.5

LLI Sample # SW 6120961
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:25 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C96 SDG#: DE003-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	18	U 18	180	1
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1

Surrogate recoveries are outside of QC limits for the initial GC/MS semivolatiles analysis. The analysis was repeated outside of the required hold time and the surrogate recoveries are within the limits. The data reported is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.3	U 7.3	18	10
10138	Acenaphthylene	208-96-8	3.7	U 3.7	18	10
10138	Anthracene	120-12-7	3.7	U 3.7	18	10
10138	Benzo(a)anthracene	56-55-3	10	J 7.3	18	10
10138	Benzo(a)pyrene	50-32-8	13	J 7.3	18	10
10138	Benzo(b)fluoranthene	205-99-2	19	U 7.3	18	10
10138	Benzo(g,h,i)perylene	191-24-2	17	J 7.3	18	10
10138	Benzo(k)fluoranthene	207-08-9	7.3	U 7.3	18	10
10138	Chrysene	218-01-9	19	U 3.7	18	10
10138	Dibenz(a,h)anthracene	53-70-3	7.3	U 7.3	18	10
10138	Fluoranthene	206-44-0	22	U 7.3	18	10
10138	Fluorene	86-73-7	7.3	U 7.3	18	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	7.3	U 7.3	18	10
10138	1-Methylnaphthalene	90-12-0	7.3	U 7.3	18	10
10138	2-Methylnaphthalene	91-57-6	7.3	U 7.3	18	10
10138	Naphthalene	91-20-3	7.3	U 7.3	18	10
10138	N-Nitrosodimethylamine	62-75-9	7.3	U 7.3	18	10
10138	Phenanthrene	85-01-8	11	J 7.3	18	10
10138	Pyrene	129-00-0	30	U 7.3	18	10

Reporting limits were raised due to interference from the sample matrix.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	4.0
10401	Dalapon	75-99-0	4.8	U 4.8	9.9
10401	2,4-DB	94-82-6	4.1	U 4.1	4.1
10401	Dicamba	1918-00-9	0.44	U 0.44	1.3
10401	Dinoseb	88-85-7	0.88	U 0.88	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.88	U 0.88	1.9
10401	MCPA	94-74-6	84	U 84	280
10401	MCPP (Mecoprop)	93-65-2	83	U 83	280
10401	2,4,5-T	93-76-5	0.090	U 0.090	0.19
10401	2,4,5-TP	93-72-1	0.083	U 0.083	0.19

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: SL-096-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SS-0.0-0.5

LLI Sample # SW 6120961
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:25 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C96 SDG#: DE003-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.073 U	0.073	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.066 U	0.066	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	1.4 U	1.4	3.7	1
01363	p,p-DDD	72-54-8	0.43 U	0.43	0.43	1
01363	p,p-DDE	72-55-9	1.1 U	1.1	1.1	1
01363	p,p-DDT	50-29-3	1.4 U	1.4	1.4	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.18	1
01363	Dieldrin	60-57-1	0.21 U	0.21	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.073 U	0.073	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.073 U	0.073	0.37	1
01363	Endrin	72-20-8	0.073 U	0.073	0.37	1
01363	Endrin Aldehyde	7421-93-4	1.3 U	1.3	1.3	1
01363	Endrin Ketone	53494-70-5	0.073 U	0.073	0.37	1
01363	Heptachlor	76-44-8	0.066 U	0.066	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.10 U	0.10	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.66 U	0.66	0.66	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.3	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	5.5 U	5.5	18	5
10225	Aroclor 5442	12642-23-8	5.5 U	5.5	18	5
10225	Aroclor 5460	11126-42-4	190	5.5	18	5
10225	PCB-1016	12674-11-2	1.8 U	1.8	9.4	5
10225	PCB-1221	11104-28-2	2.8 U	2.8	9.4	5
10225	PCB-1232	11141-16-5	2.9 U	2.9	9.4	5
10225	PCB-1242	53469-21-9	2.8 U	2.8	9.4	5
10225	PCB-1248	12672-29-6	1.8 U	1.8	9.4	5
10225	PCB-1254	11097-69-1	1.8 U	1.8	9.4	5
10225	PCB-1260	11096-82-5	7.7 J	1.8	9.4	5
10225	PCB-1262	37324-23-5	1.8 U	1.8	9.4	5
10225	PCB-1268	11100-14-4	1.8 U	1.8	9.4	5

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

Sample Description: SL-096-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SS-0.0-0.5

LLI Sample # SW 6120961
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:25 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C96 SDG#: DE003-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,200	5.33	21.2	1
07914	Boron	7440-42-8	3.73 J	0.942	5.29	1
01650	Calcium	7440-70-2	3,470	6.49	21.2	1
01654	Iron	7439-89-6	21,900	4.99	21.2	1
01656	Lithium	7439-93-2	17.0	0.23	2.1	1
01657	Magnesium	7439-95-4	4,600	2.69	10.6	1
06958	Manganese	7439-96-5	349	0.0826	0.529	1
10145	Phosphorus	7723-14-0	328	0.593	10.6	1
01662	Potassium	7440-09-7	2,950	19.1	52.9	1
01667	Sodium	7440-23-5	152	39.5	106	1
07968	Strontium	7440-24-6	27.1	0.0657	0.529	1
06969	Tin	7440-31-5	2.37 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,570	2.01	5.29	5
10146	Zirconium	7440-67-7	3.70 J	0.890	5.29	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.202 J	0.0635	0.212	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	3.96	0.0635	0.424	2
06126	Barium	7440-39-3	115	0.114	0.424	2
06127	Beryllium	7440-41-7	0.560	0.0169	0.106	2
06128	Cadmium	7440-43-9	0.604	0.0381	0.106	2
06131	Chromium	7440-47-3	19.3	0.127	0.424	2
06132	Cobalt	7440-48-4	6.66	0.0212	0.106	2
06133	Copper	7440-50-8	11.1	0.0699	0.424	2
06135	Lead	7439-92-1	9.05	0.0110	0.212	2
06138	Molybdenum	7439-98-7	0.520	0.0529	0.106	2
06139	Nickel	7440-02-0	12.1	0.106	0.424	2
06141	Selenium	7782-49-2	0.110 J	0.0424	0.424	2
06142	Silver	7440-22-4	0.0401 J	0.0127	0.106	2
06145	Thallium	7440-28-0	0.254	0.0318	0.106	2
06148	Vanadium	7440-62-2	39.0	0.0233	0.106	2
06149	Zinc	7440-66-6	62.6	0.593	3.18	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 J	0.0030	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.1	0.88	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.0	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	

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

Sample Description: SL-096-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SS-0.0-0.5

LLI Sample # SW 6120961
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:25 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C96 SDG#: DE003-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
05892	3a Cr VI by EPA 7199	18540-29-9	mg/kg 0.50 J	mg/kg 0.22	mg/kg 1.1	1
ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	mV 392	mV 10.0	mV 10.0	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
SW-846 9045C modified						
00394	22a pH by 9045C	n.a.	Std. Units 7.25	Std. Units 0.0100	Std. Units 0.0100	1
Wet Chemistry						
11624	28a Moisture Content by 160.3	n.a.	% 9.2	% 0.50	% 0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 16:16	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 06:37	Mark A Clark	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/03/2010 23:20	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 01:41	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/11/2010 14:59	Lindsey K Lafferty	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:39	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1

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

Sample Description: SL-096-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SS-0.0-0.5

LLI Sample # SW 6120961
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 14:25 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C96 SDG#: DE003-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:45	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 10:07	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:22	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 21:09	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:22	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:22	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:21	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201B	11/03/2010 15:16	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202B	11/18/2010 12:50	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/03/2010 08:20	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201B	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202B	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-056-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-056-SA5C-SS-0.0-0.5

LLI Sample # SW 6120962
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C56 SDG#: DE003-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	200	U 200	590	1
04688	Benzidine	92-87-5	1,400	U 1,400	3,900	1
04688	Benzoic acid	65-85-0	200	U 200	590	1
04688	Benzyl alcohol	100-51-6	200	U 200	590	1
04688	4-Bromophenyl-phenylether	101-55-3	20	U 20	200	1
04688	Butylbenzylphthalate	85-68-7	20	U 20	200	1
04688	Carbazole	86-74-8	20	U 20	200	1
04688	4-Chloro-3-methylphenol	59-50-7	39	U 39	200	1
04688	4-Chloroaniline	106-47-8	79	U 79	200	1
04688	bis(2-Chloroethoxy)methane	111-91-1	20	U 20	200	1
04688	bis(2-Chloroethyl)ether	111-44-4	20	U 20	200	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	20	U 20	200	1
04688	2-Chloronaphthalene	91-58-7	20	U 20	200	1
04688	2-Chlorophenol	95-57-8	20	U 20	200	1
04688	4-Chlorophenyl-phenylether	7005-72-3	39	U 39	200	1
04688	Dibenzofuran	132-64-9	20	U 20	200	1
04688	1,2-Dichlorobenzene	95-50-1	20	U 20	200	1
04688	1,3-Dichlorobenzene	541-73-1	20	U 20	200	1
04688	1,4-Dichlorobenzene	106-46-7	20	U 20	200	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	390	1
04688	2,4-Dichlorophenol	120-83-2	20	U 20	200	1
04688	Diethylphthalate	84-66-2	20	U 20	200	1
04688	2,4-Dimethylphenol	105-67-9	39	U 39	200	1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	200	1
04688	Dimethylphthalate	131-11-3	20	U 20	200	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	200	U 200	590	1
04688	2,4-Dinitrophenol	51-28-5	790	U 790	2,400	1
04688	2,4-Dinitrotoluene	121-14-2	39	U 39	200	1
04688	2,6-Dinitrotoluene	606-20-2	20	U 20	200	1
04688	1,2-Diphenylhydrazine	122-66-7	20	U 20	200	1
04688	Hexachlorobenzene	118-74-1	20	U 20	200	1
04688	Hexachlorobutadiene	87-68-3	79	U 79	200	1
04688	Hexachlorocyclopentadiene	77-47-4	200	U 200	590	1
04688	Hexachloroethane	67-72-1	20	U 20	200	1
04688	Isophorone	78-59-1	20	U 20	200	1
04688	2-Methylphenol	95-48-7	39	U 39	200	1
04688	4-Methylphenol	106-44-5	39	U 39	200	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	20	U 20	200	1
04688	3-Nitroaniline	99-09-2	39	U 39	200	1
04688	4-Nitroaniline	100-01-6	79	U 79	200	1
04688	Nitrobenzene	98-95-3	20	U 20	200	1
04688	2-Nitrophenol	88-75-5	20	U 20	200	1
04688	4-Nitrophenol	100-02-7	200	U 200	590	1
04688	N-Nitroso-di-n-propylamine	621-64-7	20	U 20	200	1
04688	N-Nitrosodiphenylamine	86-30-6	20	U 20	200	1

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

Sample Description: SL-056-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-056-SA5C-SS-0.0-0.5

LLI Sample # SW 6120962
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C56 SDG#: DE003-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	20	U 20	200	1
04688	Pentachlorophenol	87-86-5	200	U 200	590	1
04688	Phenol	108-95-2	20	U 20	200	1
04688	1,2,4-Trichlorobenzene	120-82-1	20	U 20	200	1
04688	2,4,5-Trichlorophenol	95-95-4	39	U 39	200	1
04688	2,4,6-Trichlorophenol	88-06-2	39	U 39	200	1
	Surrogate recoveries are outside of QC limits for the initial GC/MS semivolatiles analysis. The analysis was repeated outside of the required hold time and the surrogate recoveries are within the limits. The data reported is from the initial extraction of the sample.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	7.9	U 7.9	20	10
10138	Acenaphthylene	208-96-8	3.9	U 3.9	20	10
10138	Anthracene	120-12-7	10	J 3.9	20	10
10138	Benzo(a)anthracene	56-55-3	77	7.9	20	10
10138	Benzo(a)pyrene	50-32-8	130	7.9	20	10
10138	Benzo(b)fluoranthene	205-99-2	170	7.9	20	10
10138	Benzo(g,h,i)perylene	191-24-2	93	7.9	20	10
10138	Benzo(k)fluoranthene	207-08-9	41	7.9	20	10
10138	Di-n-butylphthalate	84-74-2	16,000	710	2,100	100
10138	Chrysene	218-01-9	160	3.9	20	10
10138	Dibenz(a,h)anthracene	53-70-3	22	7.9	20	10
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	180	J 71	210	10
10138	Fluoranthene	206-44-0	100	7.9	20	10
10138	Fluorene	86-73-7	7.9	U 7.9	20	10
10138	Indeno(1,2,3-cd)pyrene	193-39-5	53	7.9	20	10
10138	1-Methylnaphthalene	90-12-0	7.9	U 7.9	20	10
10138	2-Methylnaphthalene	91-57-6	7.9	U 7.9	20	10
10138	Naphthalene	91-20-3	7.9	U 7.9	20	10
10138	N-Nitrosodimethylamine	62-75-9	7.9	U 7.9	20	10
10138	Phenanthrene	85-01-8	65	7.9	20	10
10138	Pyrene	129-00-0	150	7.9	20	10
	Reporting limits were raised due to interference from the sample matrix.					
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.8	U 1.8	4.3	1
10401	Dalapon	75-99-0	5.2	U 5.2	11	1
10401	2,4-DB	94-82-6	3.7	U 3.7	3.7	1
10401	Dicamba	1918-00-9	0.47	U 0.47	1.4	1
10401	Dinoseb	88-85-7	0.94	U 0.94	2.8	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.94	U 0.94	2.0	1
10401	MCPA	94-74-6	90	U 90	300	1
10401	MCPP (Mecoprop)	93-65-2	89	U 89	300	1
10401	2,4,5-T	93-76-5	3.3	0.48	1.0	5
10401	2,4,5-TP	93-72-1	0.13	U 0.13	0.20	1

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

Sample Description: SL-056-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-056-SA5C-SS-0.0-0.5

LLI Sample # SW 6120962
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C56 SDG#: DE003-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following compounds were affected: 2,4-DB and 2,4-D. Due to interfering peaks on the chromatogram, the values reported for 2,4,5-TP represent the lowest reporting limits attainable.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.39 U	0.39	0.98	5
01363	Alpha BHC	319-84-6	0.20 U	0.20	0.98	5
01363	Beta BHC	319-85-7	0.35 U	0.35	0.98	5
01363	Gamma BHC - Lindane	58-89-9	0.20 U	0.20	0.98	5
01363	Chlordane	57-74-9	21 U	21	21	5
01363	p,p-DDD	72-54-8	3.4 U	3.4	3.4	5
01363	p,p-DDE	72-55-9	4.0 U	4.0	4.0	5
01363	p,p-DDT	50-29-3	37 U	37	37	20
01363	Delta BHC	319-86-8	0.35 J	0.21	0.98	5
01363	Dieldrin	60-57-1	4.1 U	4.1	4.1	5
01363	Endosulfan I	959-98-8	0.26 U	0.26	0.98	5
01363	Endosulfan II	33213-65-9	1.1 U	1.1	2.0	5
01363	Endosulfan Sulfate	1031-07-8	0.39 U	0.39	2.0	5
01363	Endrin	72-20-8	0.39 U	0.39	2.0	5
01363	Endrin Aldehyde	7421-93-4	8.9 U	8.9	8.9	5
01363	Endrin Ketone	53494-70-5	3.3 U	3.3	3.3	5
01363	Heptachlor	76-44-8	0.35 U	0.35	0.98	5
01363	Heptachlor Epoxide	1024-57-3	0.70 U	0.70	0.98	5
01363	Methoxychlor	72-43-5	2.0 U	2.0	9.8	5
01363	Mirex	2385-85-5	2.4 U	2.4	2.4	5
01363	Toxaphene	8001-35-2	13 U	13	39	5
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported. Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained. Due to the nature of the sample extract matrix and interference from PCBs, a dilution was used for the analysis.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	5.9 U	5.9	19	5
10225	Aroclor 5442	12642-23-8	5.9 U	5.9	19	5
10225	Aroclor 5460	11126-42-4	66	5.9	19	5
10225	PCB-1016	12674-11-2	1.9 U	1.9	10	5
10225	PCB-1221	11104-28-2	3.0 U	3.0	10	5
10225	PCB-1232	11141-16-5	3.1 U	3.1	10	5
10225	PCB-1242	53469-21-9	3.0 U	3.0	10	5
10225	PCB-1248	12672-29-6	1.9 U	1.9	10	5

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

Sample Description: SL-056-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-056-SA5C-SS-0.0-0.5

LLI Sample # SW 6120962
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C56 SDG#: DE003-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8082 ug/kg						
10225	PCB-1254	11097-69-1	68	1.9	10	5
10225	PCB-1260	11096-82-5	70	1.9	10	5
10225	PCB-1262	37324-23-5	1.9 U	1.9	10	5
10225	PCB-1268	11100-14-4	1.9 U	1.9	10	5
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals SW-846 6010B mg/kg						
01643	Aluminum	7429-90-5	16,000	5.77	22.9	1
07914	Boron	7440-42-8	16.0	1.02	5.73	1
01650	Calcium	7440-70-2	27,900	7.03	22.9	1
01654	Iron	7439-89-6	18,400	5.40	22.9	1
01656	Lithium	7439-93-2	18.3	0.25	2.3	1
01657	Magnesium	7439-95-4	8,930	2.91	11.5	1
06958	Manganese	7439-96-5	356	0.0894	0.573	1
10145	Phosphorus	7723-14-0	374	0.642	11.5	1
01662	Potassium	7440-09-7	3,160	20.6	57.3	1
01667	Sodium	7440-23-5	339	42.8	115	1
07968	Strontium	7440-24-6	68.2	0.0711	0.573	1
06969	Tin	7440-31-5	3.33 J	1.15	11.5	1
06970	Titanium	7440-32-6	1,260	2.18	5.73	5
10146	Zirconium	7440-67-7	24.7	0.963	5.73	1
SW-846 6020 mg/kg						
06124	Antimony	7440-36-0	1.58	0.0675	0.225	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.08	0.0675	0.450	2
06126	Barium	7440-39-3	181	0.121	0.450	2
06127	Beryllium	7440-41-7	1.12	0.0180	0.112	2
06128	Cadmium	7440-43-9	7.19	0.0405	0.112	2
06131	Chromium	7440-47-3	45.2	0.135	0.450	2
06132	Cobalt	7440-48-4	7.00	0.0225	0.112	2
06133	Copper	7440-50-8	33.9	0.0742	0.450	2
06135	Lead	7439-92-1	270	0.117	2.25	20
06138	Molybdenum	7439-98-7	2.88	0.0562	0.112	2
06139	Nickel	7440-02-0	35.0	0.112	0.450	2
06141	Selenium	7782-49-2	0.727	0.0450	0.450	2
06142	Silver	7440-22-4	0.694	0.0135	0.112	2
06145	Thallium	7440-28-0	0.152	0.0337	0.112	2
06148	Vanadium	7440-62-2	35.8	0.0247	0.112	2
06149	Zinc	7440-66-6	1,250	6.30	33.7	20
SW-846 7471A mg/kg						
00159	Mercury	7439-97-6	0.0876 J	0.0032	0.110	1
Wet Chemistry EPA 300.0 mg/kg						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.2	0.94	1.2	1

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

Sample Description: SL-056-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-056-SA5C-SS-0.0-0.5

LLI Sample # SW 6120962
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C56 SDG#: DE003-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	10.6 U ug/kg	10.6 ug/kg	35.4 ug/kg	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	4.0 mg/kg	0.24 mg/kg	1.2 mg/kg	1
ASTM D1498						
01821	Oxidation Reduction Potential n.a.		301 mV	10.0 mV	10.0 mV	1
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
SW-846 9045C modified						
00394	22a pH by 9045C	n.a.	8.30 Std. Units	0.0100 Std. Units	0.0100 Std. Units	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3 n.a.		15.3 %	0.50 %	0.50 %	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 16:42	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 07:08	Mark A Clark	10
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 19:44	Timothy J Trees	100
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/13/2010 10:06	John W Perkins	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/15/2010 19:51	John W Perkins	5
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 01:55	Jamie L Brillhart	5
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 02:10	Jamie L Brillhart	20
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103040005A	11/05/2010 05:15	Lindsey K Lafferty	5
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103040005A	11/01/2010 16:50	JoElla L Rice	1

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

Sample Description: SL-056-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-056-SA5C-SS-0.0-0.5

LLI Sample # SW 6120962
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C56 SDG#: DE003-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:43	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:48	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 10:18	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:25	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/03/2010 21:18	David K Beck	20
06138	Molybdenum	SW-846 6020	1	103001026001C	11/03/2010 21:15	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:25	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:25	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/03/2010 21:18	David K Beck	20
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:22	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201B	11/03/2010 16:00	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202B	11/18/2010 13:14	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/03/2010 08:34	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201B	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202B	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1

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



Analysis Report

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

Page 7 of 7

REVISED

Sample Description: SL-056-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-056-SA5C-SS-0.0-0.5

LLI Sample # SW 6120962
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:15 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C56 SDG#: DE003-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-057-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SS-0.0-0.5

LLI Sample # SW 6120963
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C57 SDG#: DE003-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	23	J 18	180	1
04688	Di-n-butylphthalate	84-74-2	12,000	89	890	5
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	710	U 710	2,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	67	J 18	350	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-057-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SS-0.0-0.5

LLI Sample # SW 6120963
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C57 SDG#: DE003-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	J 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180	1
GC/MS	Semivolatiles SW-846 8270C SIM		ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.8	1
10138	Anthracene	120-12-7	0.46	J 0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.8	J 0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	2.7	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	4.1	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	3.9	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.5	J 0.71	1.8	1
10138	Chrysene	218-01-9	2.7	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.92	J 0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Fluoranthene	206-44-0	2.3	0.71	1.8	1
10138	Fluorene	86-73-7	0.71	U 0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	J 0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71	U 0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71	U 0.71	1.8	1
10138	Naphthalene	91-20-3	0.92	J 0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71	U 0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19	1
10138	Phenanthrene	85-01-8	2.8	0.71	1.8	1
10138	Pyrene	129-00-0	3.4	0.71	1.8	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.8	1
10401	Dalapon	75-99-0	4.7	U 4.7	9.6	1
10401	2,4-DB	94-82-6	7.9	0.66	1.8	1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3	1
10401	Dinoseb	88-85-7	0.85	U 0.85	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.85	U 0.85	1.8	1
10401	MCPA	94-74-6	280	81	270	1
10401	MCPP (Mecoprop)	93-65-2	80	U 80	270	1
10401	2,4,5-T	93-76-5	0.087	U 0.087	0.18	1
10401	2,4,5-TP	93-72-1	0.080	U 0.080	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg

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

Sample Description: SL-057-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SS-0.0-0.5

LLI Sample # SW 6120963
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C57 SDG#: DE003-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	9.4 U	9.4	9.4	1
01363	p,p-DDD	72-54-8	0.39 U	0.39	0.39	1
01363	p,p-DDE	72-55-9	0.84 U	0.84	0.84	1
01363	p,p-DDT	50-29-3	4.9 U	4.9	4.9	5
01363	Delta BHC	319-86-8	0.29	0.038	0.18	1
01363	Dieldrin	60-57-1	0.36 U	0.36	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.15 U	0.15	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.29 U	0.29	0.36	1
01363	Endrin	72-20-8	0.080 U	0.080	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.86 U	0.86	0.86	1
01363	Endrin Ketone	53494-70-5	0.070 U	0.070	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.051 U	0.051	0.18	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.45 U	0.45	0.45	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	7.0	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	2.3 J	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.53 U	0.53	1.8	1
10225	PCB-1232	11141-16-5	0.55 U	0.55	1.8	1
10225	PCB-1242	53469-21-9	0.53 U	0.53	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	1.5 J	0.35	1.8	1
10225	PCB-1260	11096-82-5	1.1 J	0.35	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	13,800	5.15	20.5	1
07914	Boron	7440-42-8	3.41 J	0.910	5.11	1
01650	Calcium	7440-70-2	4,120	6.27	20.5	1
01654	Iron	7439-89-6	17,200	4.82	20.5	1

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

Sample Description: SL-057-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SS-0.0-0.5

LLI Sample # SW 6120963
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C57 SDG#: DE003-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	19.0	0.23	2.0	1
01657	Magnesium	7439-95-4	4,230	2.60	10.2	1
06958	Manganese	7439-96-5	246	0.0798	0.511	1
10145	Phosphorus	7723-14-0	295	0.573	10.2	1
01662	Potassium	7440-09-7	2,680	18.4	51.1	1
01667	Sodium	7440-23-5	85.3 J	38.2	102	1
07968	Strontium	7440-24-6	16.4	0.0634	0.511	1
06969	Tin	7440-31-5	2.20 J	1.02	10.2	1
06970	Titanium	7440-32-6	1,260	1.94	5.11	5
10146	Zirconium	7440-67-7	3.69 J	0.859	5.11	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.101 J	0.0638	0.213	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.64	0.0638	0.426	2
06126	Barium	7440-39-3	81.0	0.115	0.426	2
06127	Beryllium	7440-41-7	0.519	0.0170	0.106	2
06128	Cadmium	7440-43-9	0.349	0.0383	0.106	2
06131	Chromium	7440-47-3	21.6	0.128	0.426	2
06132	Cobalt	7440-48-4	4.29	0.0213	0.106	2
06133	Copper	7440-50-8	7.44	0.0702	0.426	2
06135	Lead	7439-92-1	36.3	0.0111	0.213	2
06138	Molybdenum	7439-98-7	0.442	0.0532	0.106	2
06139	Nickel	7440-02-0	9.26	0.106	0.426	2
06141	Selenium	7782-49-2	0.150 J	0.0426	0.426	2
06142	Silver	7440-22-4	0.0617 J	0.0128	0.106	2
06145	Thallium	7440-28-0	0.169	0.0319	0.106	2
06148	Vanadium	7440-62-2	26.8	0.0234	0.106	2
06149	Zinc	7440-66-6	108	0.596	3.19	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.237	0.0030	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.7	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	31.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.87 J	0.21	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	321	10.0	10.0	1

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

Sample Description: SL-057-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SS-0.0-0.5

LLI Sample # SW 6120963
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C57 SDG#: DE003-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.		mV	mV	mV	
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.45	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	6.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 17:07	Chad A Moline	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 18:59	Chad A Moline	5
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 17:09	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/13/2010 10:34	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 03:36	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 03:50	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/05/2010 01:31	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:53	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1

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

Sample Description: SL-057-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SS-0.0-0.5

LLI Sample # SW 6120963
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 11:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C57 SDG#: DE003-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:51	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 10:22	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:34	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/02/2010 03:34	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:34	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:34	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:23	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201B	11/03/2010 16:15	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202B	11/18/2010 13:38	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/03/2010 08:47	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201B	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202B	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182102B	10/25/2010 11:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039402B	10/25/2010 11:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-060-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SS-0.0-0.5

LLI Sample # SW 6120964
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C60 SDG#: DE003-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	720	U 720	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	46	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1

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

Sample Description: SL-060-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SS-0.0-0.5

LLI Sample # SW 6120964
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C60 SDG#: DE003-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.82 J	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.7 J	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.87 J	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Chrysene	218-01-9	1.4 J	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Fluoranthene	206-44-0	0.98 J	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.95 J	0.72	1.8	1
10138	Pyrene	129-00-0	1.2 J	0.72	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.9	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.7	1
10401	2,4-DB	94-82-6	8.1 U	8.1	8.1	1
10401	Dicamba	1918-00-9	0.69 J	0.43	1.3	1
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8	1
10401	MCPA	94-74-6	390	82	270	1
10401	MCPP (Mecoprop)	93-65-2	390	81	270	1
10401	2,4,5-T	93-76-5	0.088 U	0.088	0.18	1
10401	2,4,5-TP	93-72-1	0.081 U	0.081	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Due to interfering peaks on the chromatogram, the values reported for 2,4-DB represent the lowest reporting limits attainable.

Pesticides/PCBs **SW-846 8081A** **ug/kg** **ug/kg** **ug/kg**

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

Sample Description: SL-060-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SS-0.0-0.5

LLI Sample # SW 6120964
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C60 SDG#: DE003-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.069 U	0.069	0.18	1
01363	Beta BHC	319-85-7	0.065 U	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	5.5 U	5.5	5.5	1
01363	p,p-DDD	72-54-8	0.30 U	0.30	0.37	1
01363	p,p-DDE	72-55-9	1.5 U	1.5	1.5	1
01363	p,p-DDT	50-29-3	2.1 U	2.1	2.1	1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.071 U	0.071	0.37	1
01363	Endosulfan I	959-98-8	0.063 U	0.063	0.18	1
01363	Endosulfan II	33213-65-9	0.26 U	0.26	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.37	1
01363	Endrin	72-20-8	0.071 U	0.071	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.37 U	0.37	0.37	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37	1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.061 U	0.061	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.31 U	0.31	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.1	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	11	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.56 U	0.56	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	5.6	0.36	1.8	1
10225	PCB-1260	11096-82-5	3.7	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,100	5.32	21.2	1
07914	Boron	7440-42-8	2.80 J	0.941	5.29	1
01650	Calcium	7440-70-2	3,590	6.48	21.2	1
01654	Iron	7439-89-6	19,200	4.98	21.2	1

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

Sample Description: SL-060-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SS-0.0-0.5

LLI Sample # SW 6120964
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:30 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C60 SDG#: DE003-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	17.5	0.23	2.1	1
01657	Magnesium	7439-95-4	4,050	2.69	10.6	1
06958	Manganese	7439-96-5	309	0.0825	0.529	1
10145	Phosphorus	7723-14-0	520	0.592	10.6	1
01662	Potassium	7440-09-7	3,210	19.0	52.9	1
01667	Sodium	7440-23-5	81.2 J	39.4	106	1
07968	Strontium	7440-24-6	20.7	0.0656	0.529	1
06969	Tin	7440-31-5	2.58 J	1.06	10.6	1
06970	Titanium	7440-32-6	1,410	2.01	5.29	5
10146	Zirconium	7440-67-7	4.88 J	0.888	5.29	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.167 J	0.0616	0.205	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.45	0.0616	0.411	2
06126	Barium	7440-39-3	90.5	0.111	0.411	2
06127	Beryllium	7440-41-7	0.448	0.0164	0.103	2
06128	Cadmium	7440-43-9	0.197	0.0370	0.103	2
06131	Chromium	7440-47-3	15.6	0.123	0.411	2
06132	Cobalt	7440-48-4	4.99	0.0205	0.103	2
06133	Copper	7440-50-8	9.25	0.0678	0.411	2
06135	Lead	7439-92-1	7.69	0.0107	0.205	2
06138	Molybdenum	7439-98-7	0.417	0.0514	0.103	2
06139	Nickel	7440-02-0	9.67	0.103	0.411	2
06141	Selenium	7782-49-2	0.116 J	0.0411	0.411	2
06142	Silver	7440-22-4	0.0631 J	0.0123	0.103	2
06145	Thallium	7440-28-0	0.217	0.0308	0.103	2
06148	Vanadium	7440-62-2	32.1	0.0226	0.103	2
06149	Zinc	7440-66-6	72.1	0.575	3.08	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0085 J	0.0029	0.0999	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.6	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.3	0.22	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	337	10.0	10.0	1

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

Sample Description: SL-060-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SS-0.0-0.5

LLI Sample # SW 6120964
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:30 by AKW

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A5C60 SDG#: DE003-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.		mV	mV	mV	
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.20	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	7.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 17:32	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 08:10	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	103005708002	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/13/2010 11:01	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 04:04	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/05/2010 01:50	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 13:57	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1

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

Sample Description: SL-060-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SS-0.0-0.5

LLI Sample # SW 6120964
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:30 by AKW

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14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C60 SDG#: DE003-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 12:54	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 10:26	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:37	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/02/2010 03:37	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:37	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:37	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:24	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201B	11/03/2010 16:29	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202B	11/18/2010 14:02	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/03/2010 09:01	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201B	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202B	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182103A	10/25/2010 13:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039403A	10/25/2010 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	William C Schwebel	1

Sample Description: SL-061-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SS-0.0-0.5

LLI Sample # SW 6120965
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:40 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C61 SDG#: DE003-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	730	U 730	2,200	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	24	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1

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

Sample Description: SL-061-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SS-0.0-0.5

LLI Sample # SW 6120965
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:40 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C61 SDG#: DE003-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.79 J	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.81 J	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.2 J	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.1 J	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.2 J	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	20	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	20	1
10138	Chrysene	218-01-9	1.5 J	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	20	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	20	1
10138	Fluoranthene	206-44-0	1.4 J	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	20	1
10138	Phenanthrene	85-01-8	1.0 J	0.73	1.8	1
10138	Pyrene	129-00-0	1.5 J	0.73	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.9	1
10401	Dalapon	75-99-0	4.8 U	4.8	9.8	1
10401	2,4-DB	94-82-6	5.4 U	5.4	5.4	1
10401	Dicamba	1918-00-9	0.55 J	0.44	1.3	1
10401	Dinoseb	88-85-7	0.87 U	0.87	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.87 U	0.87	1.8	1
10401	MCPA	94-74-6	83 U	83	270	1
10401	MCPP (Mecoprop)	93-65-2	490 U	82	270	1
10401	2,4,5-T	93-76-5	0.089 U	0.089	0.18	1
10401	2,4,5-TP	93-72-1	0.082 U	0.082	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: SL-061-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SS-0.0-0.5

LLI Sample # SW 6120965
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:40 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C61 SDG#: DE003-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: 2,4-DB.						
Perchlorate		SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate EPA 6850	14797-73-0	2.3 U	2.3	5.4	1
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.072 U	0.072	0.18	1
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.065 U	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	2.7 U	2.7	3.7	1
01363	p,p-DDD	72-54-8	0.23 U	0.23	0.37	1
01363	p,p-DDE	72-55-9	0.88 U	0.88	0.88	1
01363	p,p-DDT	50-29-3	1.4 U	1.4	1.4	1
01363	Delta BHC	319-86-8	0.077 J	0.039	0.18	1
01363	Dieldrin	60-57-1	0.072 U	0.072	0.37	1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18	1
01363	Endosulfan II	33213-65-9	0.096 U	0.096	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.37	1
01363	Endrin	72-20-8	0.072 U	0.072	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.23 U	0.23	0.37	1
01363	Endrin Ketone	53494-70-5	0.097 U	0.097	0.37	1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.083 U	0.083	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.072 U	0.072	0.37	1
01363	Toxaphene	8001-35-2	2.4 U	2.4	7.2	1

The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.5 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.54 U	0.54	1.8	1
10225	PCB-1232	11141-16-5	0.57 U	0.57	1.8	1
10225	PCB-1242	53469-21-9	0.54 U	0.54	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	1.9	0.36	1.8	1
10225	PCB-1260	11096-82-5	1.3 J	0.36	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample Description: SL-061-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SS-0.0-0.5

LLI Sample # SW 6120965
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:40 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C61 SDG#: DE003-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,500	5.37	21.3	1
07914	Boron	7440-42-8	2.81 J	0.949	5.33	1
01650	Calcium	7440-70-2	3,150	6.54	21.3	1
01654	Iron	7439-89-6	21,400	5.02	21.3	1
01656	Lithium	7439-93-2	24.9	0.23	2.1	1
01657	Magnesium	7439-95-4	4,420	2.71	10.7	1
06958	Manganese	7439-96-5	296	0.0832	0.533	1
10145	Phosphorus	7723-14-0	368	0.597	10.7	1
01662	Potassium	7440-09-7	3,720	19.2	53.3	1
01667	Sodium	7440-23-5	95.3 J	39.8	107	1
07968	Strontium	7440-24-6	19.4	0.0661	0.533	1
06969	Tin	7440-31-5	2.73 J	1.07	10.7	1
06970	Titanium	7440-32-6	1,540	2.03	5.33	5
10146	Zirconium	7440-67-7	3.52 J	0.896	5.33	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.130 J	0.0646	0.215	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	3.99	0.0646	0.431	2
06126	Barium	7440-39-3	84.9	0.116	0.431	2
06127	Beryllium	7440-41-7	0.473	0.0172	0.108	2
06128	Cadmium	7440-43-9	0.164	0.0388	0.108	2
06131	Chromium	7440-47-3	15.3	0.129	0.431	2
06132	Cobalt	7440-48-4	4.72	0.0215	0.108	2
06133	Copper	7440-50-8	16.0	0.0711	0.431	2
06135	Lead	7439-92-1	7.63	0.0112	0.215	2
06138	Molybdenum	7439-98-7	0.411	0.0539	0.108	2
06139	Nickel	7440-02-0	8.69	0.108	0.431	2
06141	Selenium	7782-49-2	0.0880 J	0.0431	0.431	2
06142	Silver	7440-22-4	0.0286 J	0.0129	0.108	2
06145	Thallium	7440-28-0	0.247	0.0323	0.108	2
06148	Vanadium	7440-62-2	30.5	0.0237	0.108	2
06149	Zinc	7440-66-6	68.5	0.603	3.23	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0209 J	0.0030	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.9	0.87	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.35 J	0.22	1.1	1

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

Sample Description: SL-061-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SS-0.0-0.5

LLI Sample # SW 6120965
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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A5C61 SDG#: DE003-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry ASTM D1498						
01821	Oxidation Reduction Potential	n.a.	327	10.0	10.0	1
	The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.					
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.50	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	28a Moisture Content by 160.3	n.a.	8.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 17:58	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 17:40	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/04/2010 01:10	Michele D Hamilton	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	103060030A	11/03/2010 18:59	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 04:19	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/05/2010 03:23	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	103060030A	11/03/2010 10:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 14:00	Joanne M Gates	1

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

Sample Description: SL-061-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SS-0.0-0.5

LLI Sample # SW 6120965
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A5C61 SDG#: DE003-16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 13:04	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 10:30	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:40	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/02/2010 03:40	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:40	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:40	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:28	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201B	11/03/2010 16:44	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202B	11/18/2010 14:26	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/03/2010 09:15	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201B	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202B	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182103A	10/25/2010 13:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039403A	10/25/2010 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1

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



Analysis Report

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Page 7 of 7

REVISED

Sample Description: SL-061-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SS-0.0-0.5

LLI Sample # SW 6120965
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:40 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C61 SDG#: DE003-16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	William C Schwebel	1

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

Sample Description: SL-062-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SS-0.0-0.5

LLI Sample # SW 6120966
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:50 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C62 SDG#: DE003-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	770	U 770	2,300	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	22	J 19	380	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	570	1

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

Sample Description: SL-062-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SS-0.0-0.5

LLI Sample # SW 6120966
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:50 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C62 SDG#: DE003-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	19 U	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.77 U	0.77	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	1.2 J	0.77	1.9	1
10138	Benzo(a)pyrene	50-32-8	1.6 J	0.77	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	2.9	0.77	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	1.8 J	0.77	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.95 J	0.77	1.9	1
10138	Butylbenzylphthalate	85-68-7	7.5 J	6.9	21	1
10138	Di-n-butylphthalate	84-74-2	11 J	6.9	21	1
10138	Chrysene	218-01-9	1.8 J	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.77 U	0.77	1.9	1
10138	Diethylphthalate	84-66-2	6.9 U	6.9	21	1
10138	Dimethylphthalate	131-11-3	6.9 U	6.9	21	1
10138	Fluoranthene	206-44-0	2.4	0.77	1.9	1
10138	Fluorene	86-73-7	0.77 U	0.77	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.78 J	0.77	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.77 U	0.77	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.77 U	0.77	1.9	1
10138	Naphthalene	91-20-3	0.77 U	0.77	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.77 U	0.77	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.9 U	6.9	21	1
10138	Phenanthrene	85-01-8	1.3 J	0.77	1.9	1
10138	Pyrene	129-00-0	2.4	0.77	1.9	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4 U	1.4	4.1	1
10401	Dalapon	75-99-0	5.1 U	5.1	10	1
10401	2,4-DB	94-82-6	4.0 U	4.0	4.0	1
10401	Dicamba	1918-00-9	0.46 U	0.46	1.4	1
10401	Dinoseb	88-85-7	0.92 U	0.92	2.8	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.92 U	0.92	2.0	1
10401	MCPA	94-74-6	140 U	140	290	1
10401	MCPP (Mecoprop)	93-65-2	150 J	86	290	1
10401	2,4,5-T	93-76-5	0.094 U	0.094	0.20	1
10401	2,4,5-TP	93-72-1	0.086 U	0.086	0.20	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

When the concentration detected on the primary and confirmation column is significantly different, some uncertainty as to the presence and concentration of the compound exists. In these cases, the reporting limits have been raised. The following

Sample Description: SL-062-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SS-0.0-0.5

LLI Sample # SW 6120966
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:50 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C62 SDG#: DE003-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected: 2,4-DB and MCPA.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.076 U	0.076	0.19	1
01363	Alpha BHC	319-84-6	0.039 U	0.039	0.19	1
01363	Beta BHC	319-85-7	0.069 U	0.069	0.19	1
01363	Gamma BHC - Lindane	58-89-9	0.039 U	0.039	0.19	1
01363	Chlordane	57-74-9	2.0 U	2.0	3.9	1
01363	p,p-DDD	72-54-8	1.1 U	1.1	1.1	1
01363	p,p-DDE	72-55-9	2.1 U	2.1	2.1	1
01363	p,p-DDT	50-29-3	4.8 U	4.8	4.8	5
01363	Delta BHC	319-86-8	0.041 U	0.041	0.19	1
01363	Dieldrin	60-57-1	0.29 U	0.29	0.39	1
01363	Endosulfan I	959-98-8	0.051 U	0.051	0.19	1
01363	Endosulfan II	33213-65-9	0.11 U	0.11	0.39	1
01363	Endosulfan Sulfate	1031-07-8	0.076 U	0.076	0.39	1
01363	Endrin	72-20-8	0.076 U	0.076	0.39	1
01363	Endrin Aldehyde	7421-93-4	0.62 U	0.62	0.62	1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.39	1
01363	Heptachlor	76-44-8	0.069 U	0.069	0.19	1
01363	Heptachlor Epoxide	1024-57-3	0.10 U	0.10	0.19	1
01363	Methoxychlor	72-43-5	0.39 U	0.39	1.9	1
01363	Mirex	2385-85-5	0.12 U	0.12	0.39	1
01363	Toxaphene	8001-35-2	2.5 U	2.5	7.6	1
The sample was injected numerous times. Each time the responses for various analytes in the calibration check standard injected after the sample were outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.						
Due to interfering peaks on the chromatogram from the presence of PCBs, the values reported represent the lowest reporting limits attainable. Despite numerous cleanup methods, our usual reporting limits were not attained.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	2.6 J	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.57 U	0.57	2.0	1
10225	PCB-1232	11141-16-5	0.60 U	0.60	2.0	1
10225	PCB-1242	53469-21-9	0.57 U	0.57	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	2.1	0.38	2.0	1
10225	PCB-1260	11096-82-5	1.1 J	0.38	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	16,500	5.56	22.1	1
07914	Boron	7440-42-8	2.85 J	0.984	5.53	1
01650	Calcium	7440-70-2	2,730	6.77	22.1	1

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

Sample Description: SL-062-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SS-0.0-0.5

LLI Sample # SW 6120966
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:50 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C62 SDG#: DE003-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	18,200	5.21	22.1	1
01656	Lithium	7439-93-2	16.1	0.24	2.2	1
01657	Magnesium	7439-95-4	3,630	2.81	11.1	1
06958	Manganese	7439-96-5	287	0.0862	0.553	1
10145	Phosphorus	7723-14-0	298	0.619	11.1	1
01662	Potassium	7440-09-7	2,690	19.9	55.3	1
01667	Sodium	7440-23-5	88.2 J	41.2	111	1
07968	Strontium	7440-24-6	22.9	0.0685	0.553	1
06969	Tin	7440-31-5	2.41 J	1.11	11.1	1
06970	Titanium	7440-32-6	1,390	2.10	5.53	5
10146	Zirconium	7440-67-7	3.08 J	0.928	5.53	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.378	0.0663	0.221	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.80	0.0663	0.442	2
06126	Barium	7440-39-3	89.5	0.119	0.442	2
06127	Beryllium	7440-41-7	0.498	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.309	0.0398	0.111	2
06131	Chromium	7440-47-3	20.3	0.133	0.442	2
06132	Cobalt	7440-48-4	6.15	0.0221	0.111	2
06133	Copper	7440-50-8	9.22	0.0729	0.442	2
06135	Lead	7439-92-1	12.2	0.0115	0.221	2
06138	Molybdenum	7439-98-7	0.427	0.0553	0.111	2
06139	Nickel	7440-02-0	12.4	0.111	0.442	2
06141	Selenium	7782-49-2	0.0920 J	0.0442	0.442	2
06142	Silver	7440-22-4	0.0383 J	0.0133	0.111	2
06145	Thallium	7440-28-0	0.227	0.0332	0.111	2
06148	Vanadium	7440-62-2	49.1	0.0243	0.111	2
06149	Zinc	7440-66-6	89.7	0.619	3.32	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0047 J	0.0032	0.112	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.7	0.92	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.48 J	0.23	1.1	1
	ASTM D1498		mV	mV	mV	
01821	Oxidation Reduction Potential	n.a.	360	10.0	10.0	1

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

Sample Description: SL-062-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SS-0.0-0.5

LLI Sample # SW 6120966
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:50 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C62 SDG#: DE003-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		ASTM D1498	mV	mV	mV	
The oxidation-reduction potential is reported in mV as referred to the standard hydrogen scale.						
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	22a pH by 9045C	n.a.	7.51	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	28a Moisture Content by 160.3	n.a.	13.0	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	10302SLB026	11/09/2010 18:23	Chad A Moline	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	10302SLA026	11/18/2010 18:11	Timothy J Trees	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	10302SLA026	10/29/2010 17:00	JoElla L Rice	1
00381	BNA Soil Sonication	SW-846 3550B	1	10302SLB026	10/29/2010 13:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	103060029A	11/04/2010 02:33	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 04:33	Jamie L Brillhart	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	103040004A	11/25/2010 04:48	Jamie L Brillhart	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	103020015A	11/05/2010 03:42	Lindsey K Lafferty	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	103040004A	11/01/2010 14:15	Wanda F Oswald	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	103020015A	10/30/2010 11:35	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	103060029A	11/03/2010 01:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
07914	Boron	SW-846 6010B	2	103005708002	11/08/2010 14:04	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
01654	Iron	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1

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

Sample Description: SL-062-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SS-0.0-0.5

LLI Sample # SW 6120966
LLI Group # 1217761
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/22/2010 10:50 by AKW

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

Submitted: 10/23/2010 09:10

Reported: 01/20/2011 12:38

A5C62 SDG#: DE003-17*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
06969	Tin	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
06970	Titanium	SW-846 6010B	2	103005708002	11/07/2010 13:07	Damary Valentin	5
10146	Zirconium	SW-846 6010B	1	103005708002	11/04/2010 10:34	Eric L Eby	1
06124	Antimony	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06125	Arsenic	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06126	Barium	SW-846 6020	1	103001026001D	11/02/2010 03:44	David K Beck	2
06127	Beryllium	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06128	Cadmium	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06131	Chromium	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06132	Cobalt	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06133	Copper	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06135	Lead	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06138	Molybdenum	SW-846 6020	1	103001026001C	11/02/2010 03:44	David K Beck	2
06139	Nickel	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06141	Selenium	SW-846 6020	1	103001026001B	11/02/2010 03:44	David K Beck	2
06142	Silver	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06145	Thallium	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06148	Vanadium	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
06149	Zinc	SW-846 6020	1	103001026001A	11/02/2010 03:44	David K Beck	2
00159	Mercury	SW-846 7471A	1	103005711002	10/27/2010 20:29	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	103005708002	10/27/2010 11:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	103001026001	11/05/2010 15:30	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	103005711002	10/27/2010 12:52	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	10306306201B	11/03/2010 16:59	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	10307307202B	11/18/2010 14:50	William L Hamaker Jr	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	10305243201A	11/03/2010 09:29	William L Hamaker Jr	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	10306306201B	11/02/2010 14:10	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	10307307202B	11/03/2010 14:05	Nancy J Shoop	1
01821	Oxidation Reduction Potential	ASTM D1498	1	10298182103A	10/25/2010 13:30	Michelle L Lalli	1
00394	22a pH by 9045C	SW-846 9045C modified	1	10298039403A	10/25/2010 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	10305243201A	11/01/2010 19:55	Daniel S Smith	1
11624	28a Moisture Content by 160.3	EPA 160.3 modified	1	10308162404B	11/04/2010 10:52	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: 01/20/11 at 12:38 PM

Group Number: 1217761

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: 10302SLA026 Sample number(s): 6120950-6120966									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	82		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	83		55-120		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	91		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	89		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	99		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	95		44-138		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	89		66-137		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	104		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	100		84-132		
Chrysene	0.33 U	0.33	1.7	ug/kg	93		79-120		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	93		62-142		
Diethylphthalate	6.0 U	6.0	18	ug/kg	91		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	96		70-130		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	107		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	85		78-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	91		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	92		62-141		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	92		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	83		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	88		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	86		39-148		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	111		55-176		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	88		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	102		56-121		
Batch number: 10302SLB026 Sample number(s): 6120950-6120966									
Aniline	170 U	170.	500	ug/kg	59		10-107		
Benzidine	1,200 U	1,200.	3,300	ug/kg	51		15-121		
Benzo(a)pyrene	17 U	17.	170	ug/kg	114		69-122		
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	117		61-127		
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	122		65-122		
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	109		67-125		
Benzoic acid	170 U	170.	500	ug/kg	74		10-154		
Benzyl alcohol	170 U	170.	500	ug/kg	84		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	97		79-117		
Butylbenzylphthalate	17 U	17.	170	ug/kg	96		75-115		
Di-n-butylphthalate	17 U	17.	170	ug/kg	98		79-112		
Carbazole	17 U	17.	170	ug/kg	100		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	92		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	38		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	90		70-118		

*- Outside of specification

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 12:38 PM

Group Number: 1217761

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	85		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	85		68-131		
2-Chloronaphthalene	17 U	17.	170	ug/kg	101		67-127		
2-Chlorophenol	17 U	17.	170	ug/kg	94		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	93		79-110		
Chrysene	17 U	17.	170	ug/kg	98		76-113		
Dibenzofuran	17 U	17.	170	ug/kg	96		79-108		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	86		79-102		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	86		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	86		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	40		38-105		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	95		75-111		
Diethylphthalate	17 U	17.	170	ug/kg	94		76-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	97		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	94		70-130		
Dimethylphthalate	17 U	17.	170	ug/kg	95		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	82		53-110		
2,4-Dinitrophenol	670 U	670.	2,000	ug/kg	62		37-120		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	93		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	95		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	99		77-111		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	94		75-117		
Fluoranthene	17 U	17.	170	ug/kg	98		78-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	98		78-116		
Hexachlorobutadiene	67 U	67.	170	ug/kg	93		70-112		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	69		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	82		68-105		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	121*		64-119		
Isophorone	17 U	17.	170	ug/kg	89		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	90		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	86		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	96		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	93		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	69		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	90		71-104		
2-Nitrophenol	17 U	17.	170	ug/kg	95		81-114		
4-Nitrophenol	170 U	170.	500	ug/kg	84		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	81		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	102		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	107		68-130		
Pentachlorophenol	170 U	170.	500	ug/kg	68		35-106		
Phenanthrene	17 U	17.	170	ug/kg	98		77-113		
Phenol	17 U	17.	170	ug/kg	91		58-112		
Pyrene	17 U	17.	170	ug/kg	99		75-115		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	91		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	93		78-111		
Batch number: 103060029A	Sample number(s): 6120950-6120966								
2,4-D	1.2 U	1.2	3.6	ug/kg	98		40-140		
Dalapon	4.4 U	4.4	9.0	ug/kg	47		24-89		
2,4-DB	0.62 U	0.62	1.7	ug/kg	90		34-138		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/20/11 at 12:38 PM

Group Number: 1217761

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Dicamba	0.40	U	0.40	1.2	ug/kg	76		20-164		
Dinoseb	0.80	U	0.80	2.4	ug/kg	8*		10-36		
2,4-DP (Dichlorprop)	0.80	U	0.80	1.7	ug/kg	135		60-141		
MCPA	76	U	76.	250	ug/kg	76		34-113		
MCPP (Mecoprop)	75	U	75.	250	ug/kg	76		29-154		
2,4,5-T	0.082	U	0.082	0.17	ug/kg	92		33-145		
2,4,5-TP	0.075	U	0.075	0.17	ug/kg	83		48-138		
Batch number: 103060030A	Sample number(s): 6120956, 6120965									
6a Perchlorate EPA 6850	2.1	U	2.1	5.0	ug/kg	95		85-115		
Batch number: 103020015A	Sample number(s): 6120950-6120961, 6120963-6120966									
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	69*	83	75-125	18	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	86		72-120		
PCB-1221	0.50	U	0.50	1.7	ug/kg					
PCB-1232	0.52	U	0.52	1.7	ug/kg					
PCB-1242	0.50	U	0.50	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.33	U	0.33	1.7	ug/kg	105		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					
Batch number: 103040004A	Sample number(s): 6120950-6120966									
Aldrin	0.066	U	0.066	0.17	ug/kg	74		44-135		
Alpha BHC	0.034	U	0.034	0.17	ug/kg	79		38-130		
Beta BHC	0.060	U	0.060	0.17	ug/kg	88		56-134		
Gamma BHC - Lindane	0.034	U	0.034	0.17	ug/kg	88		46-127		
Chlordane	0.80	U	0.80	3.4	ug/kg					
p,p-DDD	0.066	U	0.066	0.34	ug/kg	181*		60-137		
p,p-DDE	0.066	U	0.066	0.34	ug/kg	124		59-141		
p,p-DDT	0.066	U	0.066	0.34	ug/kg	166*		54-130		
Delta BHC	0.036	U	0.036	0.17	ug/kg	88		55-144		
Dieldrin	0.066	U	0.066	0.34	ug/kg	132*		65-129		
Endosulfan I	0.044	U	0.044	0.17	ug/kg	130*		45-123		
Endosulfan II	0.066	U	0.066	0.34	ug/kg	116		63-127		
Endosulfan Sulfate	0.066	U	0.066	0.34	ug/kg	122		72-138		
Endrin	0.066	U	0.066	0.34	ug/kg	145*		62-129		
Endrin Aldehyde	0.066	U	0.066	0.34	ug/kg	106		55-132		
Endrin Ketone	0.066	U	0.066	0.34	ug/kg	134		69-139		
Heptachlor	0.060	U	0.060	0.17	ug/kg	100		43-124		
Heptachlor Epoxide	0.034	U	0.034	0.17	ug/kg	90		65-131		
Methoxychlor	0.34	U	0.34	1.7	ug/kg	175*		59-125		
Mirex	0.066	U	0.066	0.34	ug/kg					
Toxaphene	2.2	U	2.2	6.6	ug/kg					
Batch number: 103040005A	Sample number(s): 6120962									
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	70*	71*	75-125	3	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	84		72-120		
PCB-1221	0.50	U	0.50	1.7	ug/kg					
PCB-1232	0.52	U	0.52	1.7	ug/kg					
PCB-1242	0.50	U	0.50	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					

*- Outside of specification

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