

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 20, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/27/2011

Group Number: 1268378

SDG: DE253

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-001-SA3-SS-0.0-0.5 Soil	6419488
SL-002-SA3-SS-0.0-0.5 Soil	6419489
SL-002-SA5DS-SS-0.0-0.5 Soil	6419490
SL-001-SA5DS-SS-0.0-0.5 Soil	6419491
SL-001-SA5DS-SS-0.0-0.5 MS Soil	6419492
SL-001-SA5DS-SS-0.0-0.5 MSD Soil	6419493
SL-001-SA5DS-SS-0.0-0.5 DUP Soil	6419494
SL-001-SA5DS-SS-0.0-0.5 RL MS Soil	6419495
SL-001-SA5DS-SS-0.0-0.5 RL LCS Soil	6419496
SL-026-SA5DS-SS-0.0-0.5 Soil	6419497
SL-027-SA5DS-SS-0.0-0.5 Soil	6419498
SL-028-SA5DS-SS-0.0-0.5 Soil	6419499
SL-029-SA5DS-SS-0.0-0.5 Soil	6419500
SL-030-SA5DS-SS-0.0-0.5 Soil	6419501
SL-031-SA5DS-SS-0.0-0.5 Soil	6419502
SL-032-SA5DS-SS-0.0-0.5 Soil	6419503
DUP01-SA5DS-QC-092611 Soil	6419504

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

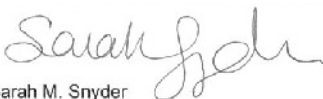
ELECTRONIC COPY TO CDM Federal Services Program

Attn: Todd Burgesser

1 COPY TO Data Package Group

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

Respectfully Submitted,


Sarah M. Snyder
Senior Specialist

Sample Description: SL-001-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA3-SS-0.0-0.5

LLI Sample # SW 6419488
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 07:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL001 SDG#: DE253-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,300	1
04688	Benzoic acid	65-85-0	170	U 170	500	1
04688	Benzyl alcohol	100-51-6	170	U 170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	33	U 33	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	33	U 33	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	330	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	33	U 33	170	1
04688	3,5-Dimethylphenol	108-68-9	33	U 33	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500	1
04688	2,4-Dinitrophenol	51-28-5	330	U 330	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	33	U 33	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	33	U 33	170	1
04688	4-Methylphenol	106-44-5	33	U 33	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	33	U 33	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	500	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	500	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-001-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA3-SS-0.0-0.5

LLI Sample # SW 6419488
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 07:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL001 SDG#: DE253-01

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	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	33	U 33	170	1
04688	2,4,6-Trichlorophenol	88-06-2	33	U 33	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.66	U 0.66	1.6	1
10138	Acenaphthylene	208-96-8	0.33	U 0.33	1.6	1
10138	Anthracene	120-12-7	0.33	U 0.33	1.6	1
10138	Benzo(a)anthracene	56-55-3	0.66	U 0.66	1.6	1
10138	Benzo(a)pyrene	50-32-8	0.66	U 0.66	1.6	1
10138	Benzo(b)fluoranthene	205-99-2	1.8	0.66	1.6	1
10138	Benzo(g,h,i)perylene	191-24-2	0.66	U 0.66	1.6	1
10138	Benzo(k)fluoranthene	207-08-9	0.66	U 0.66	1.6	1
10138	Butylbenzylphthalate	85-68-7	5.9	U 5.9	18	1
10138	Di-n-butylphthalate	84-74-2	5.9	U 5.9	18	1
10138	Chrysene	218-01-9	0.97	J 0.33	1.6	1
10138	Dibenz(a,h)anthracene	53-70-3	0.66	U 0.66	1.6	1
10138	Diethylphthalate	84-66-2	5.9	U 5.9	18	1
10138	Dimethylphthalate	131-11-3	5.9	U 5.9	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	5.9	J 5.9	18	1
10138	Fluoranthene	206-44-0	1.2	J 0.66	1.6	1
10138	Fluorene	86-73-7	0.66	U 0.66	1.6	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.66	U 0.66	1.6	1
10138	1-Methylnaphthalene	90-12-0	0.66	U 0.66	1.6	1
10138	2-Methylnaphthalene	91-57-6	0.66	U 0.66	1.6	1
10138	Naphthalene	91-20-3	0.66	U 0.66	1.6	1
10138	N-Nitrosodimethylamine	62-75-9	0.66	U 0.66	1.6	1
10138	Di-n-octylphthalate	117-84-0	5.9	U 5.9	18	1
10138	Phenanthrene	85-01-8	0.66	U 0.66	1.6	1
10138	Pyrene	129-00-0	1.1	J 0.66	1.6	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	4.7	U	4.7	4.7	1
10401	Dalapon	75-99-0	4.4	U	4.4	9.0	1
10401	2,4-DB	94-82-6	23	U	23	23	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.80	U	0.80	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	1.6	J	0.80	1.7	1
10401	MCPA	94-74-6	76	U	76	250	1
10401	MCPP (Mecoprop)	93-65-2	75	U	75	250	1
10401	2,4,5-T	93-76-5	0.082	U	0.082	0.17	1
10401	2,4,5-TP	93-72-1	0.075	U	0.075	0.17	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

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Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 07:50

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SL001 SDG#: DE253-01

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.						
Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.066 U	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.060 U	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.034 U	0.034	0.17	1
01363	Chlordane	57-74-9	2.4 J	0.80	3.4	1
01363	p,p-DDD	72-54-8	0.066 U	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.70	0.066	0.34	1
01363	p,p-DDT	50-29-3	0.91	0.066	0.34	1
01363	Delta BHC	319-86-8	0.036 U	0.036	0.17	1
01363	Dieldrin	60-57-1	0.066 U	0.066	0.34	1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.066 U	0.066	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.066 U	0.066	0.34	1
01363	Endrin	72-20-8	0.066 U	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.11 U	0.11	0.34	1
01363	Endrin Ketone	53494-70-5	0.066 U	0.066	0.34	1
01363	Heptachlor	76-44-8	0.060 U	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.073 U	0.073	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.12 U	0.12	0.34	1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.6	1
Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.						

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	3.0 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.53 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.3 J	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,700	5.93	19.6	1
07914	Boron	7440-42-8	5.94	0.353	4.90	1
01650	Calcium	7440-70-2	2,100	2.45	19.6	1
01654	Iron	7439-89-6	18,200	2.56	19.6	1
01656	Lithium	7439-93-2	24.6	0.61	2.0	1
01657	Magnesium	7439-95-4	3,360	0.431	9.80	1
06958	Manganese	7439-96-5	284	0.0353	0.490	1

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

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SSFL Area IV Collocated Soil Sampling
SL-001-SA3-SS-0.0-0.5

LLI Sample # SW 6419488
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SL001 SDG#: DE253-01

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	
10145	Phosphorus	7723-14-0	373	0.343	9.80	1
01662	Potassium	7440-09-7	4,040	11.1	49.0	1
01667	Sodium	7440-23-5	87.8 J	5.83	98.0	1
07968	Strontium	7440-24-6	18.8	0.0245	0.490	1
06969	Tin	7440-31-5	3.17 J	0.314	9.80	1
06970	Titanium	7440-32-6	1,120	0.0696	0.980	1
10146	Zirconium	7440-67-7	2.95 J	0.451	4.90	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.122 J	0.0725	0.196	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	3.15	0.0784	0.392	2
06126	Barium	7440-39-3	84.7	0.104	0.392	2
06127	Beryllium	7440-41-7	0.458	0.0157	0.0980	2
06128	Cadmium	7440-43-9	0.170	0.0431	0.0980	2
06131	Chromium	7440-47-3	12.0	0.118	0.392	2
06132	Cobalt	7440-48-4	3.80	0.0196	0.0980	2
06133	Copper	7440-50-8	6.59	0.0784	0.392	2
06135	Lead	7439-92-1	15.0	0.0100	0.196	2
06138	Molybdenum	7439-98-7	0.473	0.0490	0.0980	2
06139	Nickel	7440-02-0	8.35	0.0980	0.392	2
06141	Selenium	7782-49-2	0.145 J	0.0569	0.392	2
06142	Silver	7440-22-4	0.0759 J	0.0139	0.0980	2
06145	Thallium	7440-28-0	0.251	0.0294	0.0980	2
06148	Vanadium	7440-62-2	24.5	0.0216	0.0980	2
06149	Zinc	7440-66-6	86.9	0.549	2.94	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0987	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.80 U	0.80	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.0 U	9.0	30.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.16	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50	1

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

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LLI Sample # SW 6419488
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SL001 SDG#: DE253-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%		
	"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	11277SLC026	10/06/2011 12:07	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 07:23	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/05/2011 23:41	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 16:24	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 12:42	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 07:54	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2

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

Sample Description: SL-001-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA3-SS-0.0-0.5

LLI Sample # SW 6419488
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 07:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL001 SDG#: DE253-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 12:53	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:30	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 12:53	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 12:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 12:53	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:21	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 12:29	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 16:19	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 17:51	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Page 1 of 6

Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419489
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL002 SDG#: DE253-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,300	1
04688	Benzoic acid	65-85-0	170	U 170	500	1
04688	Benzyl alcohol	100-51-6	170	U 170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	33	U 33	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	33	U 33	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	330	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	33	U 33	170	1
04688	3,5-Dimethylphenol	108-68-9	33	U 33	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500	1
04688	2,4-Dinitrophenol	51-28-5	330	U 330	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	33	U 33	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	83	J 17	330	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	33	U 33	170	1
04688	4-Methylphenol	106-44-5	33	U 33	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	33	U 33	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	500	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	500	1

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

Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419489
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL002 SDG#: DE253-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	17 U	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	33 U	33	170	1
04688	2,4,6-Trichlorophenol	88-06-2	33 U	33	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.66 U	0.66	1.7	1
10138	Acenaphthylene	208-96-8	0.33 U	0.33	1.7	1
10138	Anthracene	120-12-7	0.36 J	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	1.1 J	0.66	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.8	0.66	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	5.4	0.66	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.0 J	0.66	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.1 J	0.66	1.7	1
10138	Butylbenzylphthalate	85-68-7	5.9 U	5.9	18	1
10138	Di-n-butylphthalate	84-74-2	5.9 U	5.9	18	1
10138	Chrysene	218-01-9	2.9	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.66 U	0.66	1.7	1
10138	Diethylphthalate	84-66-2	5.9 U	5.9	18	1
10138	Dimethylphthalate	131-11-3	5.9 U	5.9	18	1
10138	Fluoranthene	206-44-0	3.3	0.66	1.7	1
10138	Fluorene	86-73-7	0.66 U	0.66	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.80 J	0.66	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.66 U	0.66	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.66 J	0.66	1.7	1
10138	Naphthalene	91-20-3	1.2 J	0.66	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.66 U	0.66	1.7	1
10138	Di-n-octylphthalate	117-84-0	5.9 U	5.9	18	1
10138	Phenanthrene	85-01-8	2.1	0.66	1.7	1
10138	Pyrene	129-00-0	2.9	0.66	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	2.5	J	1.2	3.6	1
10401	Dalapon	75-99-0	4.4	U	4.4	9.0	1
10401	2,4-DB	94-82-6	3.8	U	3.8	3.8	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.80	U	0.80	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.80	U	0.80	1.7	1
10401	MCPA	94-74-6	76	U	76	250	1
10401	MCPP (Mecoprop)	93-65-2	75	U	75	250	1
10401	2,4,5-T	93-76-5	0.082	U	0.082	0.17	1
10401	2,4,5-TP	93-72-1	0.29		0.075	0.17	

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-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419489
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL002 SDG#: DE253-02

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. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.066 U	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.060 U	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.034 U	0.034	0.17	1
01363	Chlordane	57-74-9	1.7 J	0.80	3.4	1
01363	p,p-DDD	72-54-8	0.32 U	0.32	0.34	1
01363	p,p-DDE	72-55-9	1.5	0.066	0.34	1
01363	p,p-DDT	50-29-3	1.4	0.066	0.34	1
01363	Delta BHC	319-86-8	0.036 U	0.036	0.17	1
01363	Dieldrin	60-57-1	0.093 U	0.093	0.34	1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.066 U	0.066	0.34	1
01363	Endrin	72-20-8	0.066 U	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.17 U	0.17	0.34	1
01363	Endrin Ketone	53494-70-5	0.095 U	0.095	0.34	1
01363	Heptachlor	76-44-8	0.060 U	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.063 U	0.063	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.066 U	0.066	0.34	1
01363	Toxaphene	8001-35-2	4.6 U	4.6	6.6	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	3.6	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	1.3 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	2.9	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,300	5.87	19.4	1
07914	Boron	7440-42-8	5.61	0.350	4.85	1
01650	Calcium	7440-70-2	2,460	2.43	19.4	1
01654	Iron	7439-89-6	19,300	2.53	19.4	1

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



Analysis Report

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Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419489
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL002 SDG#: DE253-02

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	
01656	Lithium	7439-93-2	25.8	0.60	1.9	1
01657	Magnesium	7439-95-4	4,560	0.427	9.71	1
06958	Manganese	7439-96-5	289	0.0350	0.485	1
10145	Phosphorus	7723-14-0	470	0.340	9.71	1
01662	Potassium	7440-09-7	3,470	11.0	48.5	1
01667	Sodium	7440-23-5	74.5 J	5.78	97.1	1
07968	Strontium	7440-24-6	14.1	0.0243	0.485	1
06969	Tin	7440-31-5	2.78 J	0.311	9.71	1
06970	Titanium	7440-32-6	1,130	0.0689	0.971	1
10146	Zirconium	7440-67-7	2.40 J	0.447	4.85	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.141 J	0.0733	0.198	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	2.97	0.0792	0.396	2
06126	Barium	7440-39-3	86.7	0.105	0.396	2
06127	Beryllium	7440-41-7	0.367	0.0158	0.0990	2
06128	Cadmium	7440-43-9	0.217	0.0436	0.0990	2
06131	Chromium	7440-47-3	14.7	0.119	0.396	2
06132	Cobalt	7440-48-4	4.31	0.0198	0.0990	2
06133	Copper	7440-50-8	7.24	0.0792	0.396	2
06135	Lead	7439-92-1	15.5	0.0101	0.198	2
06138	Molybdenum	7439-98-7	0.429	0.0495	0.0990	2
06139	Nickel	7440-02-0	9.40	0.0990	0.396	2
06141	Selenium	7782-49-2	0.132 J	0.0574	0.396	2
06142	Silver	7440-22-4	0.0809 J	0.0141	0.0990	2
06145	Thallium	7440-28-0	0.237	0.0297	0.0990	2
06148	Vanadium	7440-62-2	31.0	0.0218	0.0990	2
06149	Zinc	7440-66-6	106	0.554	2.97	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0982	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	0.79	0.99	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.0 U	9.0	30.0	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0	1
SW-846 9045C modified						
	Std. Units		Std. Units	Std. Units		
00394	17a pH by 9045C	n.a.	6.44	0.0100	0.0100	1

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



Analysis Report

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Page 5 of 6

Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419489
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL002 SDG#: DE253-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11277SLC026	10/06/2011 12:57	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 07:55	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 00:08	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 17:38	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 13:01	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 08:05	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2

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



Analysis Report

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Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419489
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL002 SDG#: DE253-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 12:56	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:31	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 12:56	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 12:56	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 12:56	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:22	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 12:42	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 16:42	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 18:06	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 6

Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419490
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL025 SDG#: DE253-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419490
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL025 SDG#: DE253-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.96	J 0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.9	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	7.1	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.2	J 0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	7.1	J 6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0	U 6.0	18	1
10138	Chrysene	218-01-9	2.6	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0	U 6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0	U 6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	21	6.0	18	1
10138	Fluoranthene	206-44-0	2.9	0.67	1.7	1
10138	Fluorene	86-73-7	1.7	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.88	J 0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.70	J 0.67	1.7	1
10138	Naphthalene	91-20-3	1.3	J 0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	11	J 6.0	18	1
10138	Phenanthrene	85-01-8	1.9	0.67	1.7	1
10138	Pyrene	129-00-0	2.5	0.67	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U	1.2	3.7	1
10401	Dalapon	75-99-0	4.5	U	4.5	9.1	1
10401	2,4-DB	94-82-6	1.7	J	0.63	1.7	1
10401	Dicamba	1918-00-9	0.41	U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.81	U	0.81	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U	0.81	1.7	1
10401	MCPA	94-74-6	77	U	77	250	1
10401	MCPP (Mecoprop)	93-65-2	76	U	76	250	1
10401	2,4,5-T	93-76-5	0.083	U	0.083	0.17	1
10401	2,4,5-TP	93-72-1	0.076	U	0.076	0.17	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-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419490
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL025 SDG#: DE253-03

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.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.14 J	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.040 J	0.035	0.17	1
01363	Chlordane	57-74-9	8.0	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35	1
01363	p,p-DDE	72-55-9	2.8	0.067	0.35	1
01363	p,p-DDT	50-29-3	2.4	0.34	1.7	5
01363	Delta BHC	319-86-8	0.052 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.48 U	0.48	0.48	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.32 U	0.32	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.31 U	0.31	0.35	1
01363	Endrin	72-20-8	0.067 U	0.067	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.49	0.067	0.35	1
01363	Endrin Ketone	53494-70-5	0.15 U	0.15	0.35	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.18 U	0.18	0.18	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.27 U	0.27	0.35	1
01363	Toxaphene	8001-35-2	15	2.2	6.7	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	3.3 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	4.3	0.34	1.7	1
10225	PCB-1260	11096-82-5	5.6	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,600	6.06	20.0	1
07914	Boron	7440-42-8	10.9	0.361	5.01	1
01650	Calcium	7440-70-2	5,460	2.50	20.0	1
01654	Iron	7439-89-6	25,100	2.61	20.0	1
01656	Lithium	7439-93-2	20.0	0.62	2.0	1

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

Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419490
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL025 SDG#: DE253-03

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	
01657	Magnesium	7439-95-4	5,310	0.441	10.0	1
06958	Manganese	7439-96-5	385	0.0361	0.501	1
10145	Phosphorus	7723-14-0	825	0.350	10.0	1
01662	Potassium	7440-09-7	4,290	11.3	50.1	1
01667	Sodium	7440-23-5	101	5.96	100	1
07968	Strontium	7440-24-6	29.6	0.0250	0.501	1
06969	Tin	7440-31-5	3.06 J	0.320	10.0	1
06970	Titanium	7440-32-6	1,230	0.0711	1.00	1
10146	Zirconium	7440-67-7	6.76	0.461	5.01	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.309	0.0748	0.202	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.53	0.0809	0.405	2
06126	Barium	7440-39-3	105	0.107	0.405	2
06127	Beryllium	7440-41-7	0.482	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.345	0.0445	0.101	2
06131	Chromium	7440-47-3	48.8	0.121	0.405	2
06132	Cobalt	7440-48-4	7.83	0.0202	0.101	2
06133	Copper	7440-50-8	11.0	0.0809	0.405	2
06135	Lead	7439-92-1	24.2	0.0103	0.202	2
06138	Molybdenum	7439-98-7	0.747	0.0506	0.101	2
06139	Nickel	7440-02-0	15.8	0.101	0.405	2
06141	Selenium	7782-49-2	0.294 J	0.0587	0.405	2
06142	Silver	7440-22-4	0.0472 J	0.0144	0.101	2
06145	Thallium	7440-28-0	0.219	0.0303	0.101	2
06148	Vanadium	7440-62-2	84.4	0.0222	0.101	2
06149	Zinc	7440-66-6	75.9	0.566	3.03	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0222 J	0.0069	0.0979	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.04	0.0100	0.0100	1

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

Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419490
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL025 SDG#: DE253-03

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	Moisture Content by 160.3	n.a.	2.1	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	11277SLC026	10/06/2011 13:22	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 08:29	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 00:36	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 18:07	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 18:22	Melissa McDermott	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 13:20	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 08:09	Tara L Snyder	1

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

Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419490
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL025 SDG#: DE253-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:06	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:33	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:06	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:06	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:06	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:23	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 12:54	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 17:05	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 18:20	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419491
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,300	1
04688	Benzoic acid	65-85-0	170	U 170	500	1
04688	Benzyl alcohol	100-51-6	170	U 170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	33	U 33	170	1
04688	4-Chloroaniline	106-47-8	66	U 66	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	33	U 33	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	330	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	33	U 33	170	1
04688	3,5-Dimethylphenol	108-68-9	33	U 33	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500	1
04688	2,4-Dinitrophenol	51-28-5	330	U 330	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	33	U 33	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Fluoranthene	206-44-0	36	J 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	66	U 66	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	33	U 33	170	1
04688	4-Methylphenol	106-44-5	33	U 33	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	33	U 33	170	1
04688	4-Nitroaniline	100-01-6	66	U 66	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	500	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	500	1

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



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419491
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenanthrene	85-01-8	35	J 17	170	1
04688	Phenol	108-95-2	17	U 17	170	1
04688	Pyrene	129-00-0	24	J 17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	33	U 33	170	1
04688	2,4,6-Trichlorophenol	88-06-2	33	U 33	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.67	U 0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.67	U 0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	3.2	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67	U 0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0	U 6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0	U 6.0	18	1
10138	Chrysene	218-01-9	0.49	J 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0	U 6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0	U 6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13	J 6.0	18	1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67	U 0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67	U 0.67	1.7	1
10138	Naphthalene	91-20-3	0.67	U 0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.9	J 6.0	18	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	3.6	U	3.6	3.6	1
10401	Dalapon	75-99-0	4.4	U	4.4	9.1	1
10401	2,4-DB	94-82-6	2.0	U	2.0	2.0	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.81	U	0.81	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U	0.81	1.7	1
10401	MCPA	94-74-6	77	U	77	250	1
10401	MCPP (Mecoprop)	93-65-2	76	U	76	250	1
10401	2,4,5-T	93-76-5	0.50	U	0.50	0.50	1
10401	2,4,5-TP	93-72-1	0.076	U	0.076	0.17	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

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419491
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04BKG

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. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.066 U	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.060 U	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.034 U	0.034	0.17	1
01363	Chlordane	57-74-9	2.0 J	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.066 U	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.52	0.066	0.34	1
01363	p,p-DDT	50-29-3	1.2	0.066	0.34	1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.17	1
01363	Dieldrin	60-57-1	0.16 U	0.16	0.34	1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.23 U	0.23	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.066 U	0.066	0.34	1
01363	Endrin	72-20-8	0.066 U	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.43	0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.31 U	0.31	0.34	1
01363	Heptachlor	76-44-8	0.060 U	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.097 U	0.097	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.25 U	0.25	0.34	1
01363	Toxaphene	8001-35-2	13 U	13	13	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	2.4 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	8.0	0.33	1.7	1
10225	PCB-1260	11096-82-5	7.7	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,200	6.09	20.1	1
07914	Boron	7440-42-8	7.49	0.362	5.03	1
01650	Calcium	7440-70-2	5,160	2.52	20.1	1
01654	Iron	7439-89-6	22,900	2.63	20.1	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419491
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04BKG

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	16.2	0.62	2.0	1
01657	Magnesium	7439-95-4	5,630	0.443	10.1	1
06958	Manganese	7439-96-5	305	0.0362	0.503	1
10145	Phosphorus	7723-14-0	878	0.352	10.1	1
01662	Potassium	7440-09-7	1,760	11.4	50.3	1
01667	Sodium	7440-23-5	124	5.99	101	1
07968	Strontium	7440-24-6	22.0	0.0252	0.503	1
06969	Tin	7440-31-5	3.00 J	0.322	10.1	1
06970	Titanium	7440-32-6	1,240	0.0715	1.01	1
10146	Zirconium	7440-67-7	12.5	0.463	5.03	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.436	0.0730	0.197	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	7.36	0.0790	0.395	2
06126	Barium	7440-39-3	69.4	0.105	0.395	2
06127	Beryllium	7440-41-7	0.401	0.0158	0.0987	2
06128	Cadmium	7440-43-9	0.294	0.0434	0.0987	2
06131	Chromium	7440-47-3	54.1	0.118	0.395	2
06132	Cobalt	7440-48-4	7.42	0.0197	0.0987	2
06133	Copper	7440-50-8	7.37	0.0790	0.395	2
06135	Lead	7439-92-1	40.1	0.0101	0.197	2
06138	Molybdenum	7439-98-7	0.757	0.0494	0.0987	2
06139	Nickel	7440-02-0	14.0	0.0987	0.395	2
06141	Selenium	7782-49-2	0.257 J	0.0572	0.395	2
06142	Silver	7440-22-4	0.0372 J	0.0140	0.0987	2
06145	Thallium	7440-28-0	0.172	0.0296	0.0987	2
06148	Vanadium	7440-62-2	98.1	0.0217	0.0987	2
06149	Zinc	7440-66-6	72.7	0.553	2.96	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0133 J	0.0070	0.0997	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.6	0.82	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.04	0.0100	0.0100	1

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



Analysis Report

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

Page 5 of 6

Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419491
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	0.67	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	11277SLC026	10/06/2011 02:01	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 05:14	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/05/2011 22:19	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 18:37	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 13:38	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 07:31	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419491
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 12:35	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:18	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 12:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 12:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 12:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:24	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 11:51	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 14:24	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 18:35	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419492
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MS

CAT No.	Analysis Name	CAS Number	Dry 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	17	170	1
04688	Acenaphthylene	208-96-8	1,800	17	170	1
04688	Aniline	62-53-3	1,000	170	500	1
04688	Anthracene	120-12-7	1,800	17	170	1
04688	Benizidine	92-87-5	1,200	U 1,200	3,300	1
04688	Benzo(a)anthracene	56-55-3	1,700	17	170	1
04688	Benzo(a)pyrene	50-32-8	1,700	17	170	1
04688	Benzo(b)fluoranthene	205-99-2	1,700	17	170	1
04688	Benzo(g,h,i)perylene	191-24-2	1,900	17	170	1
04688	Benzo(k)fluoranthene	207-08-9	1,600	17	170	1
04688	Benzoic acid	65-85-0	940	170	500	1
04688	Benzyl alcohol	100-51-6	1,600	170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	1,700	17	170	1
04688	Butylbenzylphthalate	85-68-7	1,800	17	170	1
04688	Di-n-butylphthalate	84-74-2	1,700	17	170	1
04688	Carbazole	86-74-8	1,700	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	33	170	1
04688	4-Chloroaniline	106-47-8	680	66	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,500	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,500	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,400	17	170	1
04688	2-Chloronaphthalene	91-58-7	1,500	17	170	1
04688	2-Chlorophenol	95-57-8	1,600	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,600	33	170	1
04688	Chrysene	218-01-9	1,700	17	170	1
04688	Dibenz(a,h)anthracene	53-70-3	1,900	17	170	1
04688	Dibenzofuran	132-64-9	1,600	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	1,400	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	1,300	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	1,300	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,000	99	330	1
04688	2,4-Dichlorophenol	120-83-2	1,600	17	170	1
04688	Diethylphthalate	84-66-2	1,600	17	170	1
04688	2,4-Dimethylphenol	105-67-9	1,700	33	170	1
04688	3,5-Dimethylphenol	108-68-9	1,600	33	170	1
04688	Dimethylphthalate	131-11-3	1,600	17	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,000	170	500	1
04688	2,4-Dinitrophenol	51-28-5	1,100	330	990	1
04688	2,4-Dinitrotoluene	121-14-2	1,500	33	170	1
04688	2,6-Dinitrotoluene	606-20-2	1,600	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	1,800	17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,900	17	330	1
04688	Fluoranthene	206-44-0	1,800	17	170	1
04688	Fluorene	86-73-7	1,700	17	170	1
04688	Hexachlorobenzene	118-74-1	1,500	17	170	1
04688	Hexachlorobutadiene	87-68-3	1,400	66	170	1
04688	Hexachlorocyclopentadiene	77-47-4	1,600	170	500	1
04688	Hexachloroethane	67-72-1	1,200	17	170	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,900	17	170	1
04688	Isophorone	78-59-1	1,600	17	170	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419492
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,500	17	170	1
04688	2-Methylnaphthalene	91-57-6	1,600	17	170	1
04688	2-Methylphenol	95-48-7	1,600	33	170	1
04688	4-Methylphenol	106-44-5	1,600	33	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	1,500	17	170	1
04688	2-Nitroaniline	88-74-4	1,600	17	170	1
04688	3-Nitroaniline	99-09-2	1,500	33	170	1
04688	4-Nitroaniline	100-01-6	1,400	66	170	1
04688	Nitrobenzene	98-95-3	1,600	17	170	1
04688	2-Nitrophenol	88-75-5	1,600	17	170	1
04688	4-Nitrophenol	100-02-7	1,500	170	500	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	33	170	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	1,800	17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	1,600	17	170	1
04688	Pentachlorophenol	87-86-5	760	170	500	1
04688	Phenanthrene	85-01-8	1,700	17	170	1
04688	Phenol	108-95-2	1,600	17	170	1
04688	Pyrene	129-00-0	1,700	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,400	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	1,600	33	170	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	33	170	1
The LCS and/or LCSD recoveries are 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:						
4,6-dinitro-2-methylphenol						
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	31	0.66	1.7	1
10138	Acenaphthylene	208-96-8	29	0.33	1.7	1
10138	Anthracene	120-12-7	31	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	31	0.66	1.7	1
10138	Benzo(a)pyrene	50-32-8	33	0.66	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	35	0.66	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	22	0.66	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	37	0.66	1.7	1
10138	Butylbenzylphthalate	85-68-7	46	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	38	6.0	18	1
10138	Chrysene	218-01-9	33	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	24	0.66	1.7	1
10138	Diethylphthalate	84-66-2	31	6.0	18	1
10138	Dimethylphthalate	131-11-3	33	6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	78	6.0	18	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419492
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MS

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	Fluoranthene	206-44-0	38	0.66	1.7	1
10138	Fluorene	86-73-7	31	0.66	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	24	0.66	1.7	1
10138	1-Methylnaphthalene	90-12-0	29	0.66	1.7	1
10138	2-Methylnaphthalene	91-57-6	29	0.66	1.7	1
10138	Naphthalene	91-20-3	29	0.66	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	27	0.66	1.7	1
10138	Di-n-octylphthalate	117-84-0	59	6.0	18	1
10138	Phenanthrene	85-01-8	32	0.66	1.7	1
10138	Pyrene	129-00-0	33	0.66	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	7.8		1.2	3.6	1
10401	Dalapon	75-99-0	4.6	J	4.4	9.0	1
10401	2,4-DB	94-82-6	0.62	U	0.62	1.7	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.80	U	0.80	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.80	U	0.80	1.7	1
10401	MCPA	94-74-6	76	U	76	250	1
10401	MCPP (Mecoprop)	93-65-2	75	U	75	250	1
10401	2,4,5-T	93-76-5	0.48		0.082	0.17	1
10401	2,4,5-TP	93-72-1	0.076	U	0.076	0.17	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	0.20		0.066	0.17	1
01363	Alpha BHC	319-84-6	0.21		0.034	0.17	1
01363	Beta BHC	319-85-7	0.13	J	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.25		0.034	0.17	1
01363	Chlordane	57-74-9	3.7		0.81	3.4	1
01363	p,p-DDD	72-54-8	0.066	U	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.91		0.066	0.34	1
01363	p,p-DDT	50-29-3	1.5		0.066	0.34	1
01363	Delta BHC	319-86-8	0.26		0.036	0.17	1
01363	Dieldrin	60-57-1	0.47		0.066	0.34	1
01363	Endosulfan I	959-98-8	0.25		0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.56		0.066	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.47		0.066	0.34	1
01363	Endrin	72-20-8	0.60		0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.43		0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.57		0.066	0.34	1
01363	Heptachlor	76-44-8	0.23		0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.41		0.034	0.17	1
01363	Methoxychlor	72-43-5	1.9		0.34	1.7	1
01363	Mirex	2385-85-5	0.36		0.066	0.34	1
01363	Toxaphene	8001-35-2	14	U	14	14	1

Various analytes in the calibration check standards bracketing the sample were

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419492
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.						
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	14	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	6.6	0.33	1.7	1
10225	PCB-1260	11096-82-5	15	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,100	6.03	19.9	1
07914	Boron	7440-42-8	192	0.359	4.98	1
01650	Calcium	7440-70-2	6,500	2.49	19.9	1
01654	Iron	7439-89-6	23,200	2.60	19.9	1
01656	Lithium	7439-93-2	112	0.62	2.0	1
01657	Magnesium	7439-95-4	5,920	0.439	9.97	1
06958	Manganese	7439-96-5	358	0.0359	0.498	1
10145	Phosphorus	7723-14-0	980	0.349	9.97	1
01662	Potassium	7440-09-7	3,000	11.3	49.8	1
01667	Sodium	7440-23-5	1,140	5.93	99.7	1
07968	Strontium	7440-24-6	120	0.0249	0.498	1
06969	Tin	7440-31-5	364	0.319	9.97	1
06970	Titanium	7440-32-6	1,770	0.0708	0.997	1
10146	Zirconium	7440-67-7	106	0.459	4.98	1
		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	1.08	0.0745	0.201	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	11.1	0.0805	0.403	2
06126	Barium	7440-39-3	82.8	0.107	0.403	2
06127	Beryllium	7440-41-7	1.05	0.0161	0.101	2
06128	Cadmium	7440-43-9	1.73	0.0443	0.101	2
06131	Chromium	7440-47-3	72.3	0.121	0.403	2
06132	Cobalt	7440-48-4	64.0	0.0201	0.101	2
06133	Copper	7440-50-8	20.6	0.0805	0.403	2
06135	Lead	7439-92-1	40.2	0.0103	0.201	2
06138	Molybdenum	7439-98-7	15.4	0.0503	0.101	2
06139	Nickel	7440-02-0	28.8	0.101	0.403	2
06141	Selenium	7782-49-2	3.02	0.0584	0.403	2
06142	Silver	7440-22-4	14.0	0.0143	0.101	2
06145	Thallium	7440-28-0	0.711	0.0302	0.101	2

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419492
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MS

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	
06148	Vanadium	7440-62-2	120	0.0221	0.101	2
06149	Zinc	7440-66-6	85.1	0.564	3.02	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.141	0.0068	0.0974	1
Wet Chemistry						
		EPA 300.0	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	9.7	0.82	1.0	1
		EPA 314.0	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	578 J	453	1,510	50
		SW-846 7199	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	34.1	1.0	5.0	5
Wet Chemistry						
		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	0.67	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	11277SLC026	10/06/2011 02:26	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 05:46	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/05/2011 22:46	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 19:07	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 13:57	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419492
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 07:42	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 12:44	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:22	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 12:44	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 12:44	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 12:44	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:28	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 12:16	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11277621201A	10/08/2011 10:55	Elyse P Brunstetter	50
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11278243201A	10/07/2011 11:13	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1

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



Analysis Report

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

Page 7 of 7

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419492
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/27/2011 09:00

Suite 210

Reported: 10/20/2011 12:55

Chantilly VA 20151

SL021 SDG#: DE253-04MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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

Page 1 of 6

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419493
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,600	17	170	1
04688	Acenaphthylene	208-96-8	1,800	17	170	1
04688	Aniline	62-53-3	1,000	170	500	1
04688	Anthracene	120-12-7	1,700	17	170	1
04688	Benizidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzo(a)anthracene	56-55-3	1,700	17	170	1
04688	Benzo(a)pyrene	50-32-8	1,700	17	170	1
04688	Benzo(b)fluoranthene	205-99-2	1,700	17	170	1
04688	Benzo(g,h,i)perylene	191-24-2	1,900	17	170	1
04688	Benzo(k)fluoranthene	207-08-9	1,600	17	170	1
04688	Benzoic acid	65-85-0	670	170	500	1
04688	Benzyl alcohol	100-51-6	1,600	170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	1,700	17	170	1
04688	Butylbenzylphthalate	85-68-7	1,800	17	170	1
04688	Di-n-butylphthalate	84-74-2	1,700	17	170	1
04688	Carbazole	86-74-8	1,700	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	1,700	34	170	1
04688	4-Chloroaniline	106-47-8	630	67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,500	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,500	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,400	17	170	1
04688	2-Chloronaphthalene	91-58-7	1,400	17	170	1
04688	2-Chlorophenol	95-57-8	1,600	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,500	34	170	1
04688	Chrysene	218-01-9	1,700	17	170	1
04688	Dibenz(a,h)anthracene	53-70-3	1,900	17	170	1
04688	Dibenzofuran	132-64-9	1,600	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	1,400	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	1,400	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	1,400	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,100	100	340	1
04688	2,4-Dichlorophenol	120-83-2	1,600	17	170	1
04688	Diethylphthalate	84-66-2	1,500	17	170	1
04688	2,4-Dimethylphenol	105-67-9	1,600	34	170	1
04688	3,5-Dimethylphenol	108-68-9	1,600	34	170	1
04688	Dimethylphthalate	131-11-3	1,500	17	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	920	170	500	1
04688	2,4-Dinitrophenol	51-28-5	790	J 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	1,500	34	170	1
04688	2,6-Dinitrotoluene	606-20-2	1,600	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	1,800	17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,800	17	340	1
04688	Fluoranthene	206-44-0	1,700	17	170	1
04688	Fluorene	86-73-7	1,600	17	170	1
04688	Hexachlorobenzene	118-74-1	1,500	17	170	1
04688	Hexachlorobutadiene	87-68-3	1,400	67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	1,400	170	500	1
04688	Hexachloroethane	67-72-1	1,300	17	170	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	2,000	17	170	1
04688	Isophorone	78-59-1	1,600	17	170	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419493
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,500	17	170	1
04688	2-Methylnaphthalene	91-57-6	1,600	17	170	1
04688	2-Methylphenol	95-48-7	1,600	34	170	1
04688	4-Methylphenol	106-44-5	1,500	34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,600	17	170	1
04688	2-Nitroaniline	88-74-4	1,500	17	170	1
04688	3-Nitroaniline	99-09-2	1,400	34	170	1
04688	4-Nitroaniline	100-01-6	1,100	67	170	1
04688	Nitrobenzene	98-95-3	1,600	17	170	1
04688	2-Nitrophenol	88-75-5	1,600	17	170	1
04688	4-Nitrophenol	100-02-7	1,400	170	500	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	34	170	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,500	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	1,800	17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,600	17	170	1
04688	Pentachlorophenol	87-86-5	1,100	170	500	1
04688	Phenanthrene	85-01-8	1,700	17	170	1
04688	Phenol	108-95-2	1,500	17	170	1
04688	Pyrene	129-00-0	1,700	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,500	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	1,600	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	1,600	34	170	1

The LCS and/or LCSD recoveries are 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:

4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	31	0.66	1.7	1
10138	Acenaphthylene	208-96-8	31	0.33	1.7	1
10138	Anthracene	120-12-7	33	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	32	0.66	1.7	1
10138	Benzo(a)pyrene	50-32-8	33	0.66	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	34	0.66	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	24	0.66	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	35	0.66	1.7	1
10138	Butylbenzylphthalate	85-68-7	41	5.9	18	1
10138	Di-n-butylphthalate	84-74-2	38	5.9	18	1
10138	Chrysene	218-01-9	32	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	27	0.66	1.7	1
10138	Diethylphthalate	84-66-2	33	5.9	18	1
10138	Dimethylphthalate	131-11-3	33	5.9	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	63	5.9	18	1

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



Analysis Report

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Page 3 of 6

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419493
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MSD

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	Fluoranthene	206-44-0	35	0.66	1.7	1
10138	Fluorene	86-73-7	33	0.66	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	26	0.66	1.7	1
10138	1-Methylnaphthalene	90-12-0	29	0.66	1.7	1
10138	2-Methylnaphthalene	91-57-6	29	0.66	1.7	1
10138	Naphthalene	91-20-3	30	0.66	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	29	0.66	1.7	1
10138	Di-n-octylphthalate	117-84-0	48	5.9	18	1
10138	Phenanthrene	85-01-8	31	0.66	1.7	1
10138	Pyrene	129-00-0	31	0.66	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	5.2		1.2	3.6	1
10401	Dalapon	75-99-0	4.4	U	4.4	9.1	1
10401	2,4-DB	94-82-6	0.62	U	0.62	1.7	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.83	J	0.81	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U	0.81	1.7	1
10401	MCPA	94-74-6	76	U	76	250	1
10401	MCPP (Mecoprop)	93-65-2	75	U	75	250	1
10401	2,4,5-T	93-76-5	0.43		0.083	0.17	1
10401	2,4,5-TP	93-72-1	0.076	U	0.076	0.17	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	0.22	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.22	0.034	0.17	1
01363	Beta BHC	319-85-7	0.17	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.28	0.034	0.17	1
01363	Chlordane	57-74-9	12	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.61	0.066	0.34	1
01363	p,p-DDE	72-55-9	1.1	0.066	0.34	1
01363	p,p-DDT	50-29-3	1.6	0.066	0.34	1
01363	Delta BHC	319-86-8	0.28	0.036	0.17	1
01363	Dieldrin	60-57-1	0.52	0.066	0.34	1
01363	Endosulfan I	959-98-8	0.23	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.43	0.066	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.58	0.066	0.34	1
01363	Endrin	72-20-8	0.59	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.56	0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.56	0.066	0.34	1
01363	Heptachlor	76-44-8	0.25	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.33	0.034	0.17	1
01363	Methoxychlor	72-43-5	2.1	0.34	1.7	1
01363	Mirex	2385-85-5	0.066	U	0.066	0.34
01363	Toxaphene	8001-35-2	17	U	17	1

Various analytes in the calibration check standards bracketing the sample were

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419493
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.						
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	5.3	1.0	3.3	1
10225	PCB-1016	12674-11-2	13	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	18	0.33	1.7	1
10225	PCB-1260	11096-82-5	15	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,100	6.03	19.9	1
07914	Boron	7440-42-8	195	0.359	4.98	1
01650	Calcium	7440-70-2	6,190	2.49	19.9	1
01654	Iron	7439-89-6	23,600	2.60	19.9	1
01656	Lithium	7439-93-2	113	0.62	2.0	1
01657	Magnesium	7439-95-4	6,010	0.439	9.97	1
06958	Manganese	7439-96-5	366	0.0359	0.498	1
10145	Phosphorus	7723-14-0	971	0.349	9.97	1
01662	Potassium	7440-09-7	3,000	11.3	49.8	1
01667	Sodium	7440-23-5	1,140	5.93	99.7	1
07968	Strontium	7440-24-6	121	0.0249	0.498	1
06969	Tin	7440-31-5	366	0.319	9.97	1
06970	Titanium	7440-32-6	1,790	0.0708	0.997	1
10146	Zirconium	7440-67-7	106	0.459	4.98	1
		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	1.03	0.0738	0.199	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	10.4	0.0797	0.399	2
06126	Barium	7440-39-3	82.5	0.106	0.399	2
06127	Beryllium	7440-41-7	1.01	0.0159	0.0997	2
06128	Cadmium	7440-43-9	1.72	0.0439	0.0997	2
06131	Chromium	7440-47-3	70.5	0.120	0.399	2
06132	Cobalt	7440-48-4	63.9	0.0199	0.0997	2
06133	Copper	7440-50-8	20.7	0.0797	0.399	2
06135	Lead	7439-92-1	43.5	0.0102	0.199	2
06138	Molybdenum	7439-98-7	15.4	0.0498	0.0997	2
06139	Nickel	7440-02-0	28.3	0.0997	0.399	2
06141	Selenium	7782-49-2	2.95	0.0578	0.399	2
06142	Silver	7440-22-4	14.0	0.0142	0.0997	2
06145	Thallium	7440-28-0	0.734	0.0299	0.0997	2

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419493
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MSD

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	
06148	Vanadium	7440-62-2	118	0.0219	0.0997	2
06149	Zinc	7440-66-6	85.7	0.558	2.99	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.164	0.0070	0.0990	1
Wet Chemistry						
		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	0.67	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	11277SLC026	10/06/2011 02:51	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 06:18	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/05/2011 23:13	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 19:22	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 14:16	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419493
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 07:46	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 12:47	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:24	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 12:47	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 12:47	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 12:47	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:29	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Page 1 of 3

Sample Description: SL-001-SA5DS-SS-0.0-0.5 DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419494
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04DUP

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	6.09	20.1	1
07914	Boron	7440-42-8	7.71	0.362	5.03	1
01650	Calcium	7440-70-2	5,170	2.52	20.1	1
01654	Iron	7439-89-6	23,200	2.63	20.1	1
01656	Lithium	7439-93-2	16.5	0.62	2.0	1
01657	Magnesium	7439-95-4	5,670	0.443	10.1	1
06958	Manganese	7439-96-5	293	0.0362	0.503	1
10145	Phosphorus	7723-14-0	879	0.352	10.1	1
01662	Potassium	7440-09-7	1,780	11.4	50.3	1
01667	Sodium	7440-23-5	123	5.99	101	1
07968	Strontium	7440-24-6	21.9	0.0252	0.503	1
06969	Tin	7440-31-5	3.10 J	0.322	10.1	1
06970	Titanium	7440-32-6	1,270	0.0715	1.01	1
10146	Zirconium	7440-67-7	13.2	0.463	5.03	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.400	0.0730	0.197	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	7.31	0.0790	0.395	2
06126	Barium	7440-39-3	64.0	0.105	0.395	2
06127	Beryllium	7440-41-7	0.377	0.0158	0.0987	2
06128	Cadmium	7440-43-9	0.231	0.0434	0.0987	2
06131	Chromium	7440-47-3	52.0	0.118	0.395	2
06132	Cobalt	7440-48-4	6.88	0.0197	0.0987	2
06133	Copper	7440-50-8	7.16	0.0790	0.395	2
06135	Lead	7439-92-1	35.9	0.0101	0.197	2
06138	Molybdenum	7439-98-7	0.708	0.0494	0.0987	2
06139	Nickel	7440-02-0	13.0	0.0987	0.395	2
06141	Selenium	7782-49-2	0.243 J	0.0572	0.395	2
06142	Silver	7440-22-4	0.0346 J	0.0140	0.0987	2
06145	Thallium	7440-28-0	0.159	0.0296	0.0987	2
06148	Vanadium	7440-62-2	95.5	0.0217	0.0987	2
06149	Zinc	7440-66-6	70.6	0.553	2.96	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0068 U	0.0068	0.0971	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.5	0.79	0.99	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.2	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419494
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.06	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	0.62	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	0.67	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 07:38	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 12:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:21	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 12:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 12:41	Choon Y Tian	2

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419494
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 12:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:26	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 12:04	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 14:47	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 19:47	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419495
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	2.5 J	1.2	3.6	1
10401	Dalapon	75-99-0	4.4 U	4.4	9.0	1
10401	2,4-DB	94-82-6	2.0 U	2.0	2.0	1
10401	Dicamba	1918-00-9	0.40 U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.80 U	0.80	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.80 U	0.80	1.7	1
10401	MCPA	94-74-6	76 U	76	250	1
10401	MCPP (Mecoprop)	93-65-2	75 U	75	250	1
10401	2,4,5-T	93-76-5	0.24 U	0.24	0.24	1
10401	2,4,5-TP	93-72-1	0.075 U	0.075	0.17	1

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

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

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.13 J	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.14 J	0.034	0.17	1
01363	Beta BHC	319-85-7	0.072 J	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.21	0.034	0.17	1
01363	Chlordane	57-74-9	10	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.066 U	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.83	0.066	0.34	1
01363	p,p-DDT	50-29-3	1.7	0.066	0.34	1
01363	Delta BHC	319-86-8	0.18	0.036	0.17	1
01363	Dieldrin	60-57-1	0.40	0.066	0.34	1
01363	Endosulfan I	959-98-8	0.16 J	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.45	0.066	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.43	0.066	0.34	1
01363	Endrin	72-20-8	0.31 J	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.52	0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.29 J	0.066	0.34	1
01363	Heptachlor	76-44-8	0.16 J	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.22	0.034	0.17	1
01363	Methoxychlor	72-43-5	2.2	0.34	1.7	1
01363	Mirex	2385-85-5	0.066 U	0.066	0.34	1
01363	Toxaphene	8001-35-2	16 U	16	16	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.6 J	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419495
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	2.1	0.33	1.7	1
10225	PCB-1260	11096-82-5	5.5	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	0.67	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 01:03	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 21:20	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 14:35	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419496
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	5.3	1.2	3.6	1
10401	Dalapon	75-99-0	8.0 J	4.4	9.0	1
10401	2,4-DB	94-82-6	1.9	0.62	1.7	1
10401	Dicamba	1918-00-9	1.1 J	0.40	1.2	1
10401	Dinoseb	88-85-7	0.30 J	0.10	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	2.1	0.80	1.7	1
10401	MCPA	94-74-6	170 J	76	250	1
10401	MCPP (Mecoprop)	93-65-2	150 J	75	250	1
10401	2,4,5-T	93-76-5	0.17	0.082	0.17	1
10401	2,4,5-TP	93-72-1	0.16 J	0.075	0.17	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	0.16 J	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.13 J	0.034	0.17	1
01363	Beta BHC	319-85-7	0.18	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.15 J	0.034	0.17	1
01363	Chlordane	57-74-9	0.80 U	0.80	3.4	1
01363	p,p-DDD	72-54-8	0.37	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.40	0.066	0.34	1
01363	p,p-DDT	50-29-3	0.20 J	0.066	0.34	1
01363	Delta BHC	319-86-8	0.18	0.036	0.17	1
01363	Dieldrin	60-57-1	0.18 J	0.066	0.34	1
01363	Endosulfan I	959-98-8	0.15 J	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.21 J	0.066	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.18 J	0.066	0.34	1
01363	Endrin	72-20-8	0.29 J	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.27 J	0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.25 J	0.066	0.34	1
01363	Heptachlor	76-44-8	0.17	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.18	0.034	0.17	1
01363	Methoxychlor	72-43-5	0.86 J	0.34	1.7	1
01363	Mirex	2385-85-5	0.066 U	0.066	0.34	1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.6	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.7 J	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419496
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL021 SDG#: DE253-04RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	PCB-1260	11096-82-5	1.9	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 02:25	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 16:39	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 14:53	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1

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

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419497
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL026 SDG#: DE253-05

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	8,300	U 8,300	25,000	5
04688	Benzidine	92-87-5	58,000	U 58,000	170,000	5
04688	Benzo(a)pyrene	50-32-8	1,400	J 830	8,300	5
04688	Benzo(b)fluoranthene	205-99-2	1,400	J 830	8,300	5
04688	Benzo(g,h,i)perylene	191-24-2	1,100	J 830	8,300	5
04688	Benzoic acid	65-85-0	8,300	U 8,300	25,000	5
04688	Benzyl alcohol	100-51-6	8,300	U 8,300	25,000	5
04688	4-Bromophenyl-phenylether	101-55-3	830	U 830	8,300	5
04688	Carbazole	86-74-8	830	U 830	8,300	5
04688	4-Chloro-3-methylphenol	59-50-7	1,700	U 1,700	8,300	5
04688	4-Chloroaniline	106-47-8	3,300	U 3,300	8,300	5
04688	bis(2-Chloroethoxy)methane	111-91-1	830	U 830	8,300	5
04688	bis(2-Chloroethyl)ether	111-44-4	830	U 830	8,300	5
04688	bis(2-Chloroisopropyl)ether	39638-32-9	830	U 830	8,300	5
04688	2-Chloronaphthalene	91-58-7	830	U 830	8,300	5
04688	2-Chlorophenol	95-57-8	830	U 830	8,300	5
04688	4-Chlorophenyl-phenylether	7005-72-3	1,700	U 1,700	8,300	5
04688	Chrysene	218-01-9	1,500	J 830	8,300	5
04688	Dibenzofuran	132-64-9	830	U 830	8,300	5
04688	1,2-Dichlorobenzene	95-50-1	830	U 830	8,300	5
04688	1,3-Dichlorobenzene	541-73-1	830	U 830	8,300	5
04688	1,4-Dichlorobenzene	106-46-7	830	U 830	8,300	5
04688	3,3'-Dichlorobenzidine	91-94-1	5,000	U 5,000	17,000	5
04688	2,4-Dichlorophenol	120-83-2	830	U 830	8,300	5
04688	2,4-Dimethylphenol	105-67-9	1,700	U 1,700	8,300	5
04688	3,5-Dimethylphenol	108-68-9	1,700	U 1,700	8,300	5
04688	4,6-Dinitro-2-methylphenol	534-52-1	8,300	U 8,300	25,000	5
04688	2,4-Dinitrophenol	51-28-5	17,000	U 17,000	50,000	5
04688	2,4-Dinitrotoluene	121-14-2	1,700	U 1,700	8,300	5
04688	2,6-Dinitrotoluene	606-20-2	830	U 830	8,300	5
04688	1,2-Diphenylhydrazine	122-66-7	830	U 830	8,300	5
04688	Fluoranthene	206-44-0	1,100	J 830	8,300	5
04688	Hexachlorobenzene	118-74-1	830	U 830	8,300	5
04688	Hexachlorobutadiene	87-68-3	3,300	U 3,300	8,300	5
04688	Hexachlorocyclopentadiene	77-47-4	8,300	U 8,300	25,000	5
04688	Hexachloroethane	67-72-1	830	U 830	8,300	5
04688	Isophorone	78-59-1	830	U 830	8,300	5
04688	2-Methylphenol	95-48-7	1,700	U 1,700	8,300	5
04688	4-Methylphenol	106-44-5	1,700	U 1,700	8,300	5
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	830	U 830	8,300	5
04688	3-Nitroaniline	99-09-2	1,700	U 1,700	8,300	5
04688	4-Nitroaniline	100-01-6	3,300	U 3,300	8,300	5
04688	Nitrobenzene	98-95-3	830	U 830	8,300	5
04688	2-Nitrophenol	88-75-5	830	U 830	8,300	5
04688	4-Nitrophenol	100-02-7	8,300	U 8,300	25,000	5
04688	N-Nitroso-di-n-propylamine	621-64-7	830	U 830	8,300	5
04688	N-Nitrosodiphenylamine	86-30-6	830	U 830	8,300	5

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

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419497
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL026 SDG#: DE253-05

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	8,300	U 8,300	25,000	5
04688	Phenol	108-95-2	830	U 830	8,300	5
04688	Pyrene	129-00-0	1,300	J 830	8,300	5
04688	1,2,4-Trichlorobenzene	120-82-1	830	U 830	8,300	5
04688	2,4,5-Trichlorophenol	95-95-4	1,700	U 1,700	8,300	5
04688	2,4,6-Trichlorophenol	88-06-2	1,700	U 1,700	8,300	5

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

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

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	11	0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.48 J	0.33	1.7	1
10138	Anthracene	120-12-7	25	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	180	0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	150	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0 U	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0 U	6.0	18	1
10138	Dibenz(a,h)anthracene	53-70-3	27	0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0 U	6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0 U	6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.0 J	6.0	18	1
10138	Fluorene	86-73-7	6.7	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	78	0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67 U	0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67 U	0.67	1.7	1
10138	Naphthalene	91-20-3	0.99 J	0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67 U	0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0 U	6.0	18	1
10138	Phenanthrene	85-01-8	99	0.67	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.7	U	1.7	3.6	1
10401	Dalapon	75-99-0	4.4	U	4.4	9.1	1
10401	2,4-DB	94-82-6	5.9		0.63	1.7	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.86	J	0.81	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U	0.81	1.7	1
10401	MCPA	94-74-6	77	U	77	250	1
10401	MCPP (Mecoprop)	93-65-2	76	U	76	250	1
10401	2,4,5-T	93-76-5	0.42		0.083	0.17	1
10401	2,4,5-TP	93-72-1	0.076	U	0.076	0.17	

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



Analysis Report

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Page 3 of 6

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419497
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL026 SDG#: DE253-05

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.

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

Pesticides/PCBs	SW-846 8081A	ug/kg		ug/kg	ug/kg	
01363 Aldrin	309-00-2	6.7	U	6.7	17	100
01363 Alpha BHC	319-84-6	3.4	U	3.4	17	100
01363 Beta BHC	319-85-7	6.1	U	6.1	17	100
01363 Gamma BHC - Lindane	58-89-9	3.4	U	3.4	17	100
01363 Chlordane	57-74-9	510	U	510	510	100
01363 p,p-DDD	72-54-8	6.7	U	6.7	34	100
01363 p,p-DDE	72-55-9	270	U	270	270	500
01363 p,p-DDT	50-29-3	33	U	33	170	500
01363 Delta BHC	319-86-8	3.7	U	3.7	17	100
01363 Dieldrin	60-57-1	50	U	50	50	100
01363 Endosulfan I	959-98-8	4.5	U	4.5	17	100
01363 Endosulfan II	33213-65-9	46	U	46	46	100
01363 Endosulfan Sulfate	1031-07-8	6.7	U	6.7	34	100
01363 Endrin	72-20-8	59	U	59	59	100
01363 Endrin Aldehyde	7421-93-4	28	U	28	34	100
01363 Endrin Ketone	53494-70-5	6.7	U	6.7	34	100
01363 Heptachlor	76-44-8	6.1	U	6.1	17	100
01363 Heptachlor Epoxide	1024-57-3	83	U	83	83	100
01363 Methoxychlor	72-43-5	34	U	34	170	100
01363 Mirex	2385-85-5	31	U	31	34	100
01363 Toxaphene	8001-35-2	1,400	U	1,400	1,400	100

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	100	U	100	330	100
10225 Aroclor 5442	12642-23-8	100	U	100	330	100
10225 Aroclor 5460	11126-42-4	100	U	100	330	100
10225 PCB-1016	12674-11-2	33	U	33	170	100
10225 PCB-1221	11104-28-2	33	U	33	170	100
10225 PCB-1232	11141-16-5	33	U	33	170	100
10225 PCB-1242	53469-21-9	33	U	33	170	100
10225 PCB-1248	12672-29-6	33	U	33	170	100
10225 PCB-1254	11097-69-1	1,500		33	170	100
10225 PCB-1260	11096-82-5	40	U	40	170	100
10225 PCB-1262	37324-23-5	33	U	33	170	100
10225 PCB-1268	11100-14-4	33	U	33	170	100

Metals	SW-846 6010B	mg/kg		mg/kg	mg/kg	
01643 Aluminum	7429-90-5	9,970		5.96	19.7	1
07914 Boron	7440-42-8	5.50		0.354	4.92	1

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

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419497
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL026 SDG#: DE253-05

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	3,460	2.46	19.7	1
01654	Iron	7439-89-6	18,300	2.57	19.7	1
01656	Lithium	7439-93-2	13.8	0.61	2.0	1
01657	Magnesium	7439-95-4	4,310	0.433	9.85	1
06958	Manganese	7439-96-5	227	0.0354	0.492	1
10145	Phosphorus	7723-14-0	472	0.345	9.85	1
01662	Potassium	7440-09-7	2,570	11.1	49.2	1
01667	Sodium	7440-23-5	199	5.86	98.5	1
07968	Strontium	7440-24-6	30.7	0.0246	0.492	1
06969	Tin	7440-31-5	2.20 J	0.315	9.85	1
06970	Titanium	7440-32-6	1,100	0.0699	0.985	1
10146	Zirconium	7440-67-7	2.89 J	0.453	4.92	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.102 J	0.0736	0.199	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.27	0.0795	0.398	2
06126	Barium	7440-39-3	101	0.105	0.398	2
06127	Beryllium	7440-41-7	0.275	0.0159	0.0994	2
06128	Cadmium	7440-43-9	0.152	0.0437	0.0994	2
06131	Chromium	7440-47-3	24.8	0.119	0.398	2
06132	Cobalt	7440-48-4	6.30	0.0199	0.0994	2
06133	Copper	7440-50-8	11.9	0.0795	0.398	2
06135	Lead	7439-92-1	12.1	0.0101	0.199	2
06138	Molybdenum	7439-98-7	0.404	0.0497	0.0994	2
06139	Nickel	7440-02-0	20.0	0.0994	0.398	2
06141	Selenium	7782-49-2	0.154 J	0.0577	0.398	2
06142	Silver	7440-22-4	0.0205 J	0.0141	0.0994	2
06145	Thallium	7440-28-0	0.186	0.0298	0.0994	2
06148	Vanadium	7440-62-2	63.9	0.0219	0.0994	2
06149	Zinc	7440-66-6	58.8	0.557	2.98	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0068 U	0.0068	0.0973	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.83 U	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.34 J	0.20	1.0	1

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

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419497
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL026 SDG#: DE253-05

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	
00394	17a pH by 9045C	n.a.	6.84	0.0100	0.0100	1
Wet Chemistry			EPA 160.3 modified	%	%	
11624	Moisture Content by 160.3	n.a.	1.4	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	11277SLC026	10/06/2011 13:46	Linda M Hartenstine	5
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 09:00	Brian K Graham	1
10479	BNB Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNB Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 02:53	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 23:41	Melissa McDermott	100
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 23:55	Melissa McDermott	500
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 15:12	Jessica L Miller	100
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1

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

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419497
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL026 SDG#: DE253-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 08:13	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:09	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:34	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:09	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:09	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:09	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:32	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 13:07	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 17:28	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 20:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Page 1 of 6

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419498
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL027 SDG#: DE253-06

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	840	U 840	2,500	5
04688	Benzidine	92-87-5	5,800	U 5,800	17,000	5
04688	Benzoic acid	65-85-0	840	U 840	2,500	5
04688	Benzyl alcohol	100-51-6	840	U 840	2,500	5
04688	4-Bromophenyl-phenylether	101-55-3	84	U 84	840	5
04688	Carbazole	86-74-8	84	U 84	840	5
04688	4-Chloro-3-methylphenol	59-50-7	170	U 170	840	5
04688	4-Chloroaniline	106-47-8	330	U 330	840	5
04688	bis(2-Chloroethoxy)methane	111-91-1	84	U 84	840	5
04688	bis(2-Chloroethyl) ether	111-44-4	84	U 84	840	5
04688	bis(2-Chloroisopropyl) ether	39638-32-9	84	U 84	840	5
04688	2-Chloronaphthalene	91-58-7	84	U 84	840	5
04688	2-Chlorophenol	95-57-8	84	U 84	840	5
04688	4-Chlorophenyl-phenylether	7005-72-3	170	U 170	840	5
04688	Dibenzofuran	132-64-9	84	U 84	840	5
04688	1,2-Dichlorobenzene	95-50-1	84	U 84	840	5
04688	1,3-Dichlorobenzene	541-73-1	84	U 84	840	5
04688	1,4-Dichlorobenzene	106-46-7	84	U 84	840	5
04688	3,3'-Dichlorobenzidine	91-94-1	500	U 500	1,700	5
04688	2,4-Dichlorophenol	120-83-2	84	U 84	840	5
04688	2,4-Dimethylphenol	105-67-9	170	U 170	840	5
04688	3,5-Dimethylphenol	108-68-9	170	U 170	840	5
04688	4,6-Dinitro-2-methylphenol	534-52-1	840	U 840	2,500	5
04688	2,4-Dinitrophenol	51-28-5	1,700	U 1,700	5,000	5
04688	2,4-Dinitrotoluene	121-14-2	170	U 170	840	5
04688	2,6-Dinitrotoluene	606-20-2	84	U 84	840	5
04688	1,2-Diphenylhydrazine	122-66-7	84	U 84	840	5
04688	Hexachlorobenzene	118-74-1	84	U 84	840	5
04688	Hexachlorobutadiene	87-68-3	330	U 330	840	5
04688	Hexachlorocyclopentadiene	77-47-4	840	U 840	2,500	5
04688	Hexachloroethane	67-72-1	84	U 84	840	5
04688	Isophorone	78-59-1	84	U 84	840	5
04688	2-Methylphenol	95-48-7	170	U 170	840	5
04688	4-Methylphenol	106-44-5	170	U 170	840	5
	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	84	U 84	840	5
04688	3-Nitroaniline	99-09-2	170	U 170	840	5
04688	4-Nitroaniline	100-01-6	330	U 330	840	5
04688	Nitrobenzene	98-95-3	84	U 84	840	5
04688	2-Nitrophenol	88-75-5	84	U 84	840	5
04688	4-Nitrophenol	100-02-7	840	U 840	2,500	5
04688	N-Nitroso-di-n-propylamine	621-64-7	84	U 84	840	5
04688	N-Nitrosodiphenylamine	86-30-6	84	U 84	840	5
	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	840	U 840	2,500	5
04688	Phenol	108-95-2	84	U 84	840	5

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

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419498
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL027 SDG#: DE253-06

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	84	U 84	840	5
04688	2,4,5-Trichlorophenol	95-95-4	170	U 170	840	5
04688	2,4,6-Trichlorophenol	88-06-2	170	U 170	840	5

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

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

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	3.3	U 3.3	8.4	5
10138	Acenaphthylene	208-96-8	1.7	U 1.7	8.4	5
10138	Anthracene	120-12-7	1.7	U 1.7	8.4	5
10138	Benzo(a)anthracene	56-55-3	3.9	J 3.3	8.4	5
10138	Benzo(a)pyrene	50-32-8	3.3	U 3.3	8.4	5
10138	Benzo(b)fluoranthene	205-99-2	34	U 3.3	8.4	5
10138	Benzo(g,h,i)perylene	191-24-2	3.3	U 3.3	8.4	5
10138	Benzo(k)fluoranthene	207-08-9	3.3	U 3.3	8.4	5
10138	Butylbenzylphthalate	85-68-7	30	U 30	90	5
10138	Di-n-butylphthalate	84-74-2	30	U 30	90	5
10138	Chrysene	218-01-9	20	U 1.7	8.4	5
10138	Dibenz(a,h)anthracene	53-70-3	3.3	U 3.3	8.4	5
10138	Diethylphthalate	84-66-2	30	U 30	90	5
10138	Dimethylphthalate	131-11-3	30	U 30	90	5
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	33	J 30	90	5
10138	Fluoranthene	206-44-0	3.3	U 3.3	8.4	5
10138	Fluorene	86-73-7	3.3	U 3.3	8.4	5
10138	Indeno(1,2,3-cd)pyrene	193-39-5	3.3	U 3.3	8.4	5
10138	1-Methylnaphthalene	90-12-0	3.3	U 3.3	8.4	5
10138	2-Methylnaphthalene	91-57-6	3.3	U 3.3	8.4	5
10138	Naphthalene	91-20-3	3.3	U 3.3	8.4	5
10138	N-Nitrosodimethylamine	62-75-9	3.3	U 3.3	8.4	5
10138	Di-n-octylphthalate	117-84-0	30	U 30	90	5
10138	Phenanthrene	85-01-8	4.5	J 3.3	8.4	5
10138	Pyrene	129-00-0	7.4	J 3.3	8.4	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	1.2	U	1.2	3.6	1
10401	Dalapon	75-99-0	4.4	U	4.4	9.1	1
10401	2,4-DB	94-82-6	4.7		0.62	1.7	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.81	U	0.81	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U	0.81	1.7	1
10401	MCPA	94-74-6	77	U	77	250	1
10401	MCPP (Mecoprop)	93-65-2	76	U	76	250	1
10401	2,4,5-T	93-76-5	0.083	U	0.083	0.17	

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



Analysis Report

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

Page 3 of 6

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419498
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL027 SDG#: DE253-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor

Herbicides

SW-846 8151A

ug/kg

ug/kg

ug/kg

10401 2,4,5-TP

93-72-1

0.076 U

0.076

0.17

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

0.33 U

0.33

0.84

5

01363 Alpha BHC

319-84-6

0.17 U

0.17

0.84

5

01363 Beta BHC

319-85-7

0.30 U

0.30

0.84

5

01363 Gamma BHC - Lindane

58-89-9

0.17 U

0.17

0.84

5

01363 Chlordane

57-74-9

4.0 U

4.0

17

5

01363 p,p-DDD

72-54-8

0.70 U

0.70

1.7

5

01363 p,p-DDE

72-55-9

1.1 J

0.33

1.7

5

01363 p,p-DDT

50-29-3

1.3 J

0.33

1.7

5

01363 Delta BHC

319-86-8

0.18 U

0.18

0.84

5

01363 Dieldrin

60-57-1

0.33 U

0.33

1.7

5

01363 Endosulfan I

959-98-8

0.22 U

0.22

0.84

5

01363 Endosulfan II

33213-65-9

0.33 U

0.33

1.7

5

01363 Endosulfan Sulfate

1031-07-8

0.33 U

0.33

1.7

5

01363 Endrin

72-20-8

0.33 U

0.33

1.7

5

01363 Endrin Aldehyde

7421-93-4

0.41 U

0.41

1.7

5

01363 Endrin Ketone

53494-70-5

0.33 U

0.33

1.7

5

01363 Heptachlor

76-44-8

0.30 U

0.30

0.84

5

01363 Heptachlor Epoxide

1024-57-3

0.17 U

0.17

0.84

5

01363 Methoxychlor

72-43-5

1.9 U

1.9

8.4

5

01363 Mirex

2385-85-5

2.8 U

2.8

2.8

5

01363 Toxaphene

8001-35-2

50 U

50

50

5

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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

1.0 U

1.0

3.3

1

10225 Aroclor 5442

12642-23-8

1.0 U

1.0

3.3

1

10225 Aroclor 5460

11126-42-4

1.0 U

1.0

3.3

1

10225 PCB-1016

12674-11-2

0.33 U

0.33

1.7

1

10225 PCB-1221

11104-28-2

0.33 U

0.33

1.7

1

10225 PCB-1232

11141-16-5

0.33 U

0.33

1.7

1

10225 PCB-1242

53469-21-9

0.33 U

0.33

1.7

1

10225 PCB-1248

12672-29-6

0.33 U

0.33

1.7

1

10225 PCB-1254

11097-69-1

0.33 U

0.33

1.7

1

10225 PCB-1260

11096-82-5

0.39 U

0.39

1.7

1

10225 PCB-1262

37324-23-5

0.33 U

0.33

1.7

1

10225 PCB-1268

11100-14-4

0.33 U

0.33

1.7

1

Metals

SW-846 6010B

mg/kg

mg/kg

mg/kg

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

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419498
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL027 SDG#: DE253-06

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	15,800	5.95	19.7	1
07914	Boron	7440-42-8	9.43	0.354	4.91	1
01650	Calcium	7440-70-2	8,000	2.46	19.7	1
01654	Iron	7439-89-6	27,200	12.8	98.3	5
01656	Lithium	7439-93-2	30.5	0.61	2.0	1
01657	Magnesium	7439-95-4	7,140	0.432	9.83	1
06958	Manganese	7439-96-5	317	0.0354	0.491	1
10145	Phosphorus	7723-14-0	655	0.344	9.83	1
01662	Potassium	7440-09-7	3,940	11.1	49.1	1
01667	Sodium	7440-23-5	146	5.85	98.3	1
07968	Strontium	7440-24-6	21.6	0.0246	0.491	1
06969	Tin	7440-31-5	2.63 J	0.314	9.83	1
06970	Titanium	7440-32-6	1,260	0.0698	0.983	1
10146	Zirconium	7440-67-7	7.02	0.452	4.91	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.194 J	0.0734	0.198	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.79	0.0794	0.397	2
06126	Barium	7440-39-3	128	0.105	0.397	2
06127	Beryllium	7440-41-7	0.440	0.0159	0.0992	2
06128	Cadmium	7440-43-9	0.354	0.0437	0.0992	2
06131	Chromium	7440-47-3	44.5	0.119	0.397	2
06132	Cobalt	7440-48-4	10.7	0.0198	0.0992	2
06133	Copper	7440-50-8	14.1	0.0794	0.397	2
06135	Lead	7439-92-1	10.1	0.0101	0.198	2
06138	Molybdenum	7439-98-7	0.413	0.0496	0.0992	2
06139	Nickel	7440-02-0	20.6	0.0992	0.397	2
06141	Selenium	7782-49-2	0.282 J	0.0576	0.397	2
06142	Silver	7440-22-4	0.161	0.0141	0.0992	2
06145	Thallium	7440-28-0	0.367	0.0298	0.0992	2
06148	Vanadium	7440-62-2	95.0	0.0218	0.0992	2
06149	Zinc	7440-66-6	104	0.556	2.98	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0988	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.80	1.0	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.4	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0	1

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

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419498
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL027 SDG#: DE253-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.41	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	1.2	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	11277SLC026	10/06/2011 14:11	Linda M Hartenstine	5
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/11/2011 02:49	Gregory J Drahovsky	5
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 03:20	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/12/2011 03:04	Melissa McDermott	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 15:31	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 17:39	John P Hook	5
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1

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

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419498
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL027 SDG#: DE253-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/07/2011 08:17	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:12	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:36	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:12	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:12	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:12	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 13:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 17:51	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 20:16	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Page 1 of 6

Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419499
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL028 SDG#: DE253-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,300	1
04688	Benzoic acid	65-85-0	170	U 170	500	1
04688	Benzyl alcohol	100-51-6	170	U 170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	33	U 33	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	33	U 33	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	330	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	33	U 33	170	1
04688	3,5-Dimethylphenol	108-68-9	33	U 33	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500	1
04688	2,4-Dinitrophenol	51-28-5	330	U 330	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	33	U 33	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	33	U 33	170	1
04688	4-Methylphenol	106-44-5	33	U 33	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	33	U 33	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	500	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	500	1
04688	Phenol	108-95-2	18	J 17	170	1

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

Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419499
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL028 SDG#: DE253-07

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	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	33	U 33	170	1
04688	2,4,6-Trichlorophenol	88-06-2	33	U 33	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.66	U 0.66	1.7	1
10138	Acenaphthylene	208-96-8	0.33	U 0.33	1.7	1
10138	Anthracene	120-12-7	0.33	U 0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.80	J 0.66	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.1	J 0.66	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.8	0.66	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.66	U 0.66	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.72	J 0.66	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0	U 6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0	U 6.0	18	1
10138	Chrysene	218-01-9	1.1	J 0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.66	U 0.66	1.7	1
10138	Diethylphthalate	84-66-2	6.0	U 6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0	U 6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.0	U 6.0	18	1
10138	Fluoranthene	206-44-0	0.86	J 0.66	1.7	1
10138	Fluorene	86-73-7	0.66	U 0.66	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.66	U 0.66	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.66	U 0.66	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.66	U 0.66	1.7	1
10138	Naphthalene	91-20-3	0.66	U 0.66	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.66	U 0.66	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0	U 6.0	18	1
10138	Phenanthrene	85-01-8	0.66	U 0.66	1.7	1
10138	Pyrene	129-00-0	0.82	J 0.66	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U	1.2	3.6	1
10401	Dalapon	75-99-0	4.4	U	4.4	9.0	1
10401	2,4-DB	94-82-6	6.3	U	6.3	6.3	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.80	U	0.80	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.80	U	0.80	1.7	1
10401	MCPA	94-74-6	120	J	76	250	1
10401	MCPP (Mecoprop)	93-65-2	75	U	75	250	1
10401	2,4,5-T	93-76-5	0.26		0.082	0.17	1
10401	2,4,5-TP	93-72-1	0.075	U	0.075	0.17	

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-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419499
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL028 SDG#: DE253-07

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. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.33 U	0.33	0.83	5
01363	Alpha BHC	319-84-6	0.17 U	0.17	0.83	5
01363	Beta BHC	319-85-7	0.30 U	0.30	0.83	5
01363	Gamma BHC - Lindane	58-89-9	0.17 U	0.17	0.83	5
01363	Chlordane	57-74-9	10 J	4.0	17	5
01363	p,p-DDD	72-54-8	0.46 U	0.46	1.7	5
01363	p,p-DDE	72-55-9	0.54 U	0.54	1.7	5
01363	p,p-DDT	50-29-3	7.0	0.33	1.7	5
01363	Delta BHC	319-86-8	0.18 U	0.18	0.83	5
01363	Dieldrin	60-57-1	2.1 U	2.1	2.1	5
01363	Endosulfan I	959-98-8	0.22 U	0.22	0.83	5
01363	Endosulfan II	33213-65-9	1.8 U	1.8	1.8	5
01363	Endosulfan Sulfate	1031-07-8	0.33 U	0.33	1.7	5
01363	Endrin	72-20-8	0.33 U	0.33	1.7	5
01363	Endrin Aldehyde	7421-93-4	0.87 U	0.87	1.7	5
01363	Endrin Ketone	53494-70-5	0.33 U	0.33	1.7	5
01363	Heptachlor	76-44-8	0.30 U	0.30	0.83	5
01363	Heptachlor Epoxide	1024-57-3	0.35 U	0.35	0.83	5
01363	Methoxychlor	72-43-5	1.7 U	1.7	8.3	5
01363	Mirex	2385-85-5	1.8 U	1.8	1.8	5
01363	Toxaphene	8001-35-2	60 U	60	60	5

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	1.9	0.33	1.7	1
10225	PCB-1260	11096-82-5	0.98 J	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,000	5.91	19.5	1
07914	Boron	7440-42-8	7,00	0.351	4.88	1
01650	Calcium	7440-70-2	4,810	2.44	19.5	1
01654	Iron	7439-89-6	25,400	2.55	19.5	1

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

Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419499
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL028 SDG#: DE253-07

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	21.4	0.61	2.0	1
01657	Magnesium	7439-95-4	6,320	0.430	9.76	1
06958	Manganese	7439-96-5	293	0.0351	0.488	1
10145	Phosphorus	7723-14-0	739	0.342	9.76	1
01662	Potassium	7440-09-7	4,800	11.0	48.8	1
01667	Sodium	7440-23-5	195	5.81	97.6	1
07968	Strontium	7440-24-6	21.1	0.0244	0.488	1
06969	Tin	7440-31-5	3.05 J	0.312	9.76	1
06970	Titanium	7440-32-6	1,480	0.0693	0.976	1
10146	Zirconium	7440-67-7	2.42 J	0.449	4.88	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.145 J	0.0722	0.195	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	2.80	0.0781	0.391	2
06126	Barium	7440-39-3	140	0.103	0.391	2
06127	Beryllium	7440-41-7	0.243	0.0156	0.0976	2
06128	Cadmium	7440-43-9	0.362	0.0430	0.0976	2
06131	Chromium	7440-47-3	22.5	0.117	0.391	2
06132	Cobalt	7440-48-4	7.43	0.0195	0.0976	2
06133	Copper	7440-50-8	16.5	0.0781	0.391	2
06135	Lead	7439-92-1	28.1	0.010	0.195	2
06138	Molybdenum	7439-98-7	0.384	0.0488	0.0976	2
06139	Nickel	7440-02-0	17.3	0.0976	0.391	2
06141	Selenium	7782-49-2	0.144 J	0.0566	0.391	2
06142	Silver	7440-22-4	0.351	0.0139	0.0976	2
06145	Thallium	7440-28-0	0.244	0.0293	0.0976	2
06148	Vanadium	7440-62-2	62.6	0.0215	0.0976	2
06149	Zinc	7440-66-6	109	0.547	2.93	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0095 J	0.0070	0.0996	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.79 U	0.79	0.99	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.38 J	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.10	0.0100	0.0100	1

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

Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419499
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL028 SDG#: DE253-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	0.56	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	11277SLC026	10/06/2011 14:36	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 23:36	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 03:48	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/12/2011 03:19	Melissa McDermott	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 15:50	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 17:43	John P Hook	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:21	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 17:43	John P Hook	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 17:43	John P Hook	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 17:43	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 17:43	John P Hook	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:21	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:21	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 17:43	John P Hook	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 17:43	John P Hook	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:21	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:21	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:21	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/10/2011 13:55	Eric L Eby	1

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

Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419499
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL028 SDG#: DE253-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:15	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:38	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:15	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:15	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:35	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 13:58	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 18:14	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 20:37	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419500
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL029 SDG#: DE253-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	18	J 17	170	1

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

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419500
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL029 SDG#: DE253-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	1.3	J 0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.9	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	4.1	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.2	J 0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.2	J 0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2	U 6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19	1
10138	Chrysene	218-01-9	2.2	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	10	J 6.2	19	1
10138	Fluoranthene	206-44-0	2.9	0.69	1.7	1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76	J 0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7	1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	7.5	J 6.2	19	1
10138	Phenanthrene	85-01-8	2.3	0.69	1.7	1
10138	Pyrene	129-00-0	2.6	0.69	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U	1.2	3.7	1
10401	Dalapon	75-99-0	4.6	U	4.6	9.3	1
10401	2,4-DB	94-82-6	1.7	J	0.64	1.8	1
10401	Dicamba	1918-00-9	0.41	U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.83	U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83	U	0.83	1.8	1
10401	MCPA	94-74-6	79	U	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78	U	78	260	1
10401	2,4,5-T	93-76-5	0.085	U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.078	U	0.078	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419500
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL029 SDG#: DE253-08

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	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	3.3 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.30 U	0.30	0.35	1
01363	p,p-DDE	72-55-9	2.1 U	2.1	2.1	1
01363	p,p-DDT	50-29-3	3.5 U	3.5	3.5	5
01363	Delta BHC	319-86-8	0.35	0.037	0.17	1
01363	Dieldrin	60-57-1	1.2 U	1.2	1.2	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.36 U	0.36	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.45 U	0.45	0.45	1
01363	Endrin Aldehyde	7421-93-4	0.53 U	0.53	0.53	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.53 U	0.53	0.53	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.17 U	0.17	0.35	1
01363	Toxaphene	8001-35-2	17 U	17	17	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	15	0.34	1.8	1
10225	PCB-1260	11096-82-5	5.0	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	29,200	6.20	20.5	1
07914	Boron	7440-42-8	13.5	0.369	5.12	1
01650	Calcium	7440-70-2	6,510	2.56	20.5	1
01654	Iron	7439-89-6	36,900	13.4	102	5
01656	Lithium	7439-93-2	55.1	0.64	2.0	1

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

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419500
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL029 SDG#: DE253-08

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	
01657	Magnesium	7439-95-4	10,200	0.451	10.2	1
06958	Manganese	7439-96-5	345	0.0369	0.512	1
10145	Phosphorus	7723-14-0	503	0.359	10.2	1
01662	Potassium	7440-09-7	5,730	11.6	51.2	1
01667	Sodium	7440-23-5	161	6.10	102	1
07968	Strontium	7440-24-6	28.8	0.0256	0.512	1
06969	Tin	7440-31-5	3.12 J	0.328	10.2	1
06970	Titanium	7440-32-6	1,700	0.0728	1.02	1
10146	Zirconium	7440-67-7	4.39 J	0.471	5.12	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.343	0.0744	0.201	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.36	0.0804	0.402	2
06126	Barium	7440-39-3	143	0.107	0.402	2
06127	Beryllium	7440-41-7	0.635	0.0161	0.101	2
06128	Cadmium	7440-43-9	0.252	0.0442	0.101	2
06131	Chromium	7440-47-3	58.8	0.121	0.402	2
06132	Cobalt	7440-48-4	14.0	0.0201	0.101	2
06133	Copper	7440-50-8	22.4	0.0804	0.402	2
06135	Lead	7439-92-1	15.7	0.0103	0.201	2
06138	Molybdenum	7439-98-7	0.514	0.0503	0.101	2
06139	Nickel	7440-02-0	29.2	0.101	0.402	2
06141	Selenium	7782-49-2	0.412	0.0583	0.402	2
06142	Silver	7440-22-4	0.0472 J	0.0143	0.101	2
06145	Thallium	7440-28-0	0.539	0.0302	0.101	2
06148	Vanadium	7440-62-2	118	0.0221	0.101	2
06149	Zinc	7440-66-6	116	0.563	3.02	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 J	0.0068	0.0964	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.6	0.81	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.4	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.90	0.0100	0.0100	1

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

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419500
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL029 SDG#: DE253-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	3.4	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	11277SLC026	10/06/2011 15:01	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/11/2011 00:08	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 04:15	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 22:18	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 22:32	Melissa McDermott	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 16:09	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 17:50	John P Hook	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:25	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 17:50	John P Hook	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 17:54	John P Hook	5
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 17:50	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 17:50	John P Hook	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:25	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:25	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 17:50	John P Hook	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 17:50	John P Hook	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:25	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:25	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:25	Tara L Snyder	1

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

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419500
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL029 SDG#: DE253-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010B	1	112715708001	10/10/2011 13:59	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:39	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:18	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:36	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 14:11	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 18:37	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 20:44	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401A	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419501
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL030 SDG#: DE253-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419501
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL030 SDG#: DE253-09

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	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7	1
10138	Acenaphthylene	208-96-8	2.9	0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	10	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	3.5	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	19	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67	U 0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	200	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18	1
10138	Chrysene	218-01-9	4.4	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13	J 6.1	18	1
10138	Fluoranthene	206-44-0	2.6	0.67	1.7	1
10138	Fluorene	86-73-7	3.5	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.94	J 0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67	U 0.67	1.7	1
10138	Naphthalene	91-20-3	0.99	J 0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	25	6.1	18	1
10138	Phenanthrene	85-01-8	1.4	J 0.67	1.7	1
10138	Pyrene	129-00-0	2.3	0.67	1.7	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	1.2	U 1.2	3.7
10401	Dalapon	75-99-0	4.5	U 4.5	9.2
10401	2,4-DB	94-82-6	0.84	U 0.84	1.7
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2
10401	Dinoseb	88-85-7	0.82	U 0.82	2.5
10401	2,4-DP (Dichlorprop)	120-36-5	0.82	U 0.82	1.7
10401	MCPA	94-74-6	78	U 78	260
10401	MCPP (Mecoprop)	93-65-2	77	U 77	260
10401	2,4,5-T	93-76-5	0.084	U 0.084	0.17
10401	2,4,5-TP	93-72-1	0.077	U 0.077	0.17

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



Analysis Report

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Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419501
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL030 SDG#: DE253-09

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. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.090 J	0.035	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.18	0.035	0.17	1
01363	Chlordane	57-74-9	3.4 J	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.29 U	0.29	0.35	1
01363	p,p-DDE	72-55-9	0.86	0.090	0.35	1
01363	p,p-DDT	50-29-3	0.60 U	0.60	0.60	1
01363	Delta BHC	319-86-8	0.073 U	0.073	0.17	1
01363	Dieldrin	60-57-1	0.17 U	0.17	0.35	1
01363	Endosulfan I	959-98-8	0.089 J	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.40	0.067	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35	1
01363	Endrin	72-20-8	0.25 U	0.25	0.35	1
01363	Endrin Aldehyde	7421-93-4	1.5 U	1.5	1.5	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.35	1
01363	Heptachlor	76-44-8	0.15 U	0.15	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.13 U	0.13	0.17	1
01363	Methoxychlor	72-43-5	0.99 U	0.99	1.7	1
01363	Mirex	2385-85-5	0.067 U	0.067	0.35	1
01363	Toxaphene	8001-35-2	42 U	42	42	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	2.3	0.34	1.7	1
10225	PCB-1260	11096-82-5	1.3 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	26,100	6.12	20.2	1
07914	Boron	7440-42-8	17.3	0.364	5.06	1

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

Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419501
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL030 SDG#: DE253-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01650	Calcium	7440-70-2	8,470	2.53	20.2	1
01654	Iron	7439-89-6	34,100	13.2	101	5
01656	Lithium	7439-93-2	47.1	0.63	2.0	1
01657	Magnesium	7439-95-4	9,090	0.445	10.1	1
06958	Manganese	7439-96-5	377	0.0364	0.506	1
10145	Phosphorus	7723-14-0	677	0.354	10.1	1
01662	Potassium	7440-09-7	7,340	11.4	50.6	1
01667	Sodium	7440-23-5	146	6.02	101	1
07968	Strontium	7440-24-6	35.9	0.0253	0.506	1
06969	Tin	7440-31-5	3.08 J	0.324	10.1	1
06970	Titanium	7440-32-6	1,670	0.0719	1.01	1
10146	Zirconium	7440-67-7	3.54 J	0.466	5.06	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.182 J	0.0749	0.202	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	9.83	0.0810	0.405	2
06126	Barium	7440-39-3	180	0.107	0.405	2
06127	Beryllium	7440-41-7	0.576	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.283	0.0445	0.101	2
06131	Chromium	7440-47-3	68.5	0.121	0.405	2
06132	Cobalt	7440-48-4	16.8	0.0202	0.101	2
06133	Copper	7440-50-8	25.6	0.0810	0.405	2
06135	Lead	7439-92-1	17.8	0.0103	0.202	2
06138	Molybdenum	7439-98-7	0.651	0.0506	0.101	2
06139	Nickel	7440-02-0	34.2	0.101	0.405	2
06141	Selenium	7782-49-2	0.483	0.0587	0.405	2
06142	Silver	7440-22-4	0.0488 J	0.0144	0.101	2
06145	Thallium	7440-28-0	0.616	0.0304	0.101	2
06148	Vanadium	7440-62-2	136	0.0223	0.101	2
06149	Zinc	7440-66-6	138	0.567	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0145 J	0.0070	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0	1

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

Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419501
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL030 SDG#: DE253-09

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	
00394	17a pH by 9045C	n.a.	7.08	0.0100	0.0100	1
Wet Chemistry			EPA 160.3 modified	%	%	
11624	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11277SLC026	10/06/2011 15:26	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 11:10	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 04:43	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 17:09	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 16:28	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 17:58	John P Hook	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:29	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 17:58	John P Hook	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 18:02	John P Hook	5
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 17:58	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 17:58	John P Hook	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:29	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:29	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 17:58	John P Hook	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 17:58	John P Hook	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:29	Tara L Snyder	1

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

Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419501
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL030 SDG#: DE253-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:29	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:29	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/10/2011 14:03	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112711026001A	10/04/2011 05:37	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:41	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:37	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 14:23	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201A	10/05/2011 19:01	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 20:59	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201A	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401B	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419502
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL031 SDG#: DE253-10

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	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	18	J 17	340	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1

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

Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419502
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL031 SDG#: DE253-10

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	Phenol	108-95-2	20	J 17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U	1.2	3.7	1
10401	Dalapon	75-99-0	4.6	U	4.6	9.3	1
10401	2,4-DB	94-82-6	3.2		0.64	1.8	1
10401	Dicamba	1918-00-9	0.41	U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.83	U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83	U	0.83	1.8	1
10401	MCPA	94-74-6	170	U	170	260	1
10401	MCPP (Mecoprop)	93-65-2	78	U	78	260	1
10401	2,4,5-T	93-76-5	0.085	U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.078	U	0.078	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory

Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419502
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL031 SDG#: DE253-10

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. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	6.2	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.42 U	0.42	0.42	1
01363	p,p-DDE	72-55-9	2.2	0.068	0.35	1
01363	p,p-DDT	50-29-3	2.9	0.068	0.35	1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17	1
01363	Dieldrin	60-57-1	0.16 U	0.16	0.35	1
01363	Endosulfan I	959-98-8	0.050 U	0.050	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.73	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.17 U	0.17	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.19 U	0.19	0.35	1
01363	Toxaphene	8001-35-2	10	2.3	6.8	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	2.4	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	29,200	6.26	20.7	1
07914	Boron	7440-42-8	14.0	0.373	5.18	1
01650	Calcium	7440-70-2	6,570	2.59	20.7	1
01654	Iron	7439-89-6	39,000	13.5	104	5

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

Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419502
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL031 SDG#: DE253-10

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	
01656	Lithium	7439-93-2	45.2	0.64	2.1	1
01657	Magnesium	7439-95-4	9,660	0.455	10.4	1
06958	Manganese	7439-96-5	361	0.0373	0.518	1
10145	Phosphorus	7723-14-0	528	0.362	10.4	1
01662	Potassium	7440-09-7	6,660	11.7	51.8	1
01667	Sodium	7440-23-5	135	6.16	104	1
07968	Strontium	7440-24-6	34.5	0.0259	0.518	1
06969	Tin	7440-31-5	3.21 J	0.331	10.4	1
06970	Titanium	7440-32-6	1,710	0.0735	1.04	1
10146	Zirconium	7440-67-7	5.13 J	0.476	5.18	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.341	0.0751	0.203	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.83	0.0812	0.406	2
06126	Barium	7440-39-3	151	0.108	0.406	2
06127	Beryllium	7440-41-7	0.693	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.268	0.0447	0.101	2
06131	Chromium	7440-47-3	55.5	0.122	0.406	2
06132	Cobalt	7440-48-4	14.0	0.0203	0.101	2
06133	Copper	7440-50-8	24.8	0.0812	0.406	2
06135	Lead	7439-92-1	32.3	0.0104	0.203	2
06138	Molybdenum	7439-98-7	0.664	0.0507	0.101	2
06139	Nickel	7440-02-0	28.6	0.101	0.406	2
06141	Selenium	7782-49-2	0.510	0.0589	0.406	2
06142	Silver	7440-22-4	0.0554 J	0.0144	0.101	2
06145	Thallium	7440-28-0	0.526	0.0304	0.101	2
06148	Vanadium	7440-62-2	111	0.0223	0.101	2
06149	Zinc	7440-66-6	138	0.568	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0130 J	0.0070	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.6	0.82	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.38 J	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.96	0.0100	0.0100	1

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

Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419502
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL031 SDG#: DE253-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	3.4	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	11277SLC026	10/06/2011 15:51	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/11/2011 01:12	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 05:10	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 17:23	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 16:46	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 18:16	John P Hook	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:33	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 18:16	John P Hook	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 18:05	John P Hook	5
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 18:16	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 18:16	John P Hook	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:33	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:33	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 18:16	John P Hook	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 18:16	John P Hook	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:33	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:33	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:33	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/10/2011 14:07	Eric L Eby	1

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

Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419502
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL031 SDG#: DE253-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:24	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:42	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:24	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:24	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:24	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:38	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201A	10/05/2011 14:36	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201B	10/05/2011 20:56	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 21:13	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201A	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201B	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401B	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419503
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL032 SDG#: DE253-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	18	J 17	170	1

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

Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419503
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL032 SDG#: DE253-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.57	J 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	6.7	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	6.8	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	20	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.3	J 0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	18	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18	1
10138	Chrysene	218-01-9	8.5	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	66	6.1	18	1
10138	Fluoranthene	206-44-0	12	0.67	1.7	1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.4	J 0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.84	J 0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.81	J 0.67	1.7	1
10138	Naphthalene	91-20-3	1.5	J 0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	9.6	J 6.1	18	1
10138	Phenanthrene	85-01-8	2.8	0.67	1.7	1
10138	Pyrene	129-00-0	12	0.67	1.7	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	1.2	U 1.2	3.7
10401	Dalapon	75-99-0	4.5	U 4.5	9.2
10401	2,4-DB	94-82-6	1.7	J 0.63	1.7
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2
10401	Dinoseb	88-85-7	0.82	U 0.82	2.5
10401	2,4-DP (Dichlorprop)	120-36-5	0.82	U 0.82	1.7
10401	MCPA	94-74-6	92	U 92	260
10401	MCPP (Mecoprop)	93-65-2	77	U 77	260
10401	2,4,5-T	93-76-5	0.15	J 0.084	0.17
10401	2,4,5-TP	93-72-1	0.077	U 0.077	0.17

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



Analysis Report

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Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419503
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL032 SDG#: DE253-11

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.

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

Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363 Aldrin	309-00-2	0.067 U	0.067	0.17	1
01363 Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363 Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363 Gamma BHC - Lindane	58-89-9	0.057 J	0.035	0.17	1
01363 Chlordane	57-74-9	2.6 J	0.82	3.5	1
01363 p,p-DDD	72-54-8	0.30 U	0.30	0.35	1
01363 p,p-DDE	72-55-9	1.2 U	0.067	0.35	1
01363 p,p-DDT	50-29-3	0.94 U	0.94	0.94	1
01363 Delta BHC	319-86-8	0.037 U	0.037	0.17	1
01363 Dieldrin	60-57-1	0.20 U	0.20	0.35	1
01363 Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363 Endosulfan II	33213-65-9	0.067 U	0.067	0.35	1
01363 Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35	1
01363 Endrin	72-20-8	0.067 U	0.067	0.35	1
01363 Endrin Aldehyde	7421-93-4	0.46 U	0.067	0.35	1
01363 Endrin Ketone	53494-70-5	0.34 U	0.34	0.35	1
01363 Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363 Heptachlor Epoxide	1024-57-3	0.10 U	0.10	0.17	1
01363 Methoxychlor	72-43-5	0.81 J	0.35	1.7	1
01363 Mirex	2385-85-5	0.15 U	0.15	0.35	1
01363 Toxaphene	8001-35-2	10 U	10	10	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.4	1
10225 Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225 Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225 PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225 PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225 PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225 PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225 PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225 PCB-1254	11097-69-1	7.9 U	0.34	1.7	1
10225 PCB-1260	11096-82-5	0.40 U	0.40	1.7	1
10225 PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225 PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643 Aluminum	7429-90-5	26,500	6.19	20.4	1
07914 Boron	7440-42-8	15.9	0.368	5.11	1

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

Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419503
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL032 SDG#: DE253-11

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	
01650	Calcium	7440-70-2	15,900	2.56	20.4	1
01654	Iron	7439-89-6	33,500	13.3	102	5
01656	Lithium	7439-93-2	40.6	0.63	2.0	1
01657	Magnesium	7439-95-4	8,580	0.450	10.2	1
06958	Manganese	7439-96-5	371	0.0368	0.511	1
10145	Phosphorus	7723-14-0	571	0.358	10.2	1
01662	Potassium	7440-09-7	6,450	11.6	51.1	1
01667	Sodium	7440-23-5	136	6.08	102	1
07968	Strontium	7440-24-6	51.6	0.0256	0.511	1
06969	Tin	7440-31-5	3.07 J	0.327	10.2	1
06970	Titanium	7440-32-6	1,520	0.0726	1.02	1
10146	Zirconium	7440-67-7	2.88 J	0.470	5.11	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.317	0.0749	0.202	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.40	0.0810	0.405	2
06126	Barium	7440-39-3	146	0.107	0.405	2
06127	Beryllium	7440-41-7	0.621	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.282	0.0445	0.101	2
06131	Chromium	7440-47-3	47.7	0.121	0.405	2
06132	Cobalt	7440-48-4	12.6	0.0202	0.101	2
06133	Copper	7440-50-8	20.1	0.0810	0.405	2
06135	Lead	7439-92-1	15.3	0.0103	0.202	2
06138	Molybdenum	7439-98-7	0.794	0.0506	0.101	2
06139	Nickel	7440-02-0	26.2	0.101	0.405	2
06141	Selenium	7782-49-2	0.515	0.0587	0.405	2
06142	Silver	7440-22-4	0.0435 J	0.0144	0.101	2
06145	Thallium	7440-28-0	0.474	0.0304	0.101	2
06148	Vanadium	7440-62-2	97.5	0.0223	0.101	2
06149	Zinc	7440-66-6	101	0.567	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.37 J	0.20	1.0	1

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

Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419503
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL032 SDG#: DE253-11

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	
00394	17a pH by 9045C	n.a.	7.30	0.0100	0.0100	1
Wet Chemistry			EPA 160.3 modified	%	%	
11624	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11277SLC026	10/06/2011 16:16	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/10/2011 12:15	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 05:38	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 16:54	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 17:05	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 18:21	John P Hook	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:37	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 18:21	John P Hook	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 18:25	John P Hook	5
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 18:21	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 18:21	John P Hook	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:37	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:37	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 18:21	John P Hook	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 18:21	John P Hook	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:37	Tara L Snyder	1

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

Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419503
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

SL032 SDG#: DE253-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:37	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:37	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/10/2011 14:11	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:27	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:47	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:27	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:27	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:27	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:39	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201B	10/05/2011 14:49	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201B	10/05/2011 21:19	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 21:35	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201B	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201B	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401B	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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

Page 1 of 6

Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419504
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

DUP01 SDG#: DE253-12FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,300	1
04688	Benzoic acid	65-85-0	170	U 170	500	1
04688	Benzyl alcohol	100-51-6	170	U 170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	33	U 33	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	33	U 33	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	330	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	33	U 33	170	1
04688	3,5-Dimethylphenol	108-68-9	33	U 33	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500	1
04688	2,4-Dinitrophenol	51-28-5	330	U 330	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	33	U 33	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	51	J 17	330	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	33	U 33	170	1
04688	4-Methylphenol	106-44-5	33	U 33	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	33	U 33	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	500	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	500	1

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

Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419504
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

DUP01 SDG#: DE253-12FD

CAT No.	Analysis Name	CAS Number	Dry 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 J	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	33 U	33	170	1
04688	2,4,6-Trichlorophenol	88-06-2	33 U	33	170	1

The LCS and/or LCSD recoveries are 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:
4,6-dinitro-2-methylphenol

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67 U	0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.33 U	0.33	1.7	1
10138	Anthracene	120-12-7	0.33 U	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.67 U	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.67 U	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.1 J	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67 U	0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67 U	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0 U	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0 U	6.0	18	1
10138	Chrysene	218-01-9	0.75 J	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67 U	0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0 U	6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0 U	6.0	18	1
10138	Fluoranthene	206-44-0	0.67 U	0.67	1.7	1
10138	Fluorene	86-73-7	0.67 U	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67 U	0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67 U	0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67 U	0.67	1.7	1
10138	Naphthalene	91-20-3	0.67 U	0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67 U	0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0 U	6.0	18	1
10138	Phenanthrene	85-01-8	0.67 U	0.67	1.7	1
10138	Pyrene	129-00-0	0.67 U	0.67	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U	1.2	3.6	1
10401	Dalapon	75-99-0	4.4	U	4.4	9.0	1
10401	2,4-DB	94-82-6	0.62	U	0.62	1.7	1
10401	Dicamba	1918-00-9	0.40	U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.80	U	0.80	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.80	U	0.80	1.7	1
10401	MCPA	94-74-6	110	U	110	250	1
10401	MCPP (Mecoprop)	93-65-2	75	U	75	250	1
10401	2,4,5-T	93-76-5	0.43	U	0.43	0.43	1
10401	2,4,5-TP	93-72-1	0.075	U	0.075	0.17	

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: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419504
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

DUP01 SDG#: DE253-12FD

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. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.066 U	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.060 U	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.049 U	0.049	0.17	1
01363	Chlordane	57-74-9	5.3	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.066 U	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.70	0.066	0.34	1
01363	p,p-DDT	50-29-3	1.5	0.066	0.34	1
01363	Delta BHC	319-86-8	0.48	0.036	0.17	1
01363	Dieldrin	60-57-1	0.17 U	0.17	0.34	1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.28 U	0.28	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.34	1
01363	Endrin	72-20-8	0.12 U	0.12	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.51	0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.34 U	0.34	0.34	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.13 U	0.13	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.19 U	0.19	0.34	1
01363	Toxaphene	8001-35-2	13 U	13	13	1

Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

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	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	7.4	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	4.9	0.33	1.7	1
10225	PCB-1260	11096-82-5	5.9	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,200	5.97	19.8	1
07914	Boron	7440-42-8	6.86	0.356	4.94	1
01650	Calcium	7440-70-2	5,090	2.47	19.8	1
01654	Iron	7439-89-6	23,700	2.58	19.8	1

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

Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419504
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

DUP01 SDG#: DE253-12FD

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	18.2	0.61	2.0	1
01657	Magnesium	7439-95-4	5,790	0.435	9.88	1
06958	Manganese	7439-96-5	308	0.0356	0.494	1
10145	Phosphorus	7723-14-0	879	0.346	9.88	1
01662	Potassium	7440-09-7	1,630	11.2	49.4	1
01667	Sodium	7440-23-5	109	5.88	98.8	1
07968	Strontium	7440-24-6	22.4	0.0247	0.494	1
06969	Tin	7440-31-5	2.90 J	0.316	9.88	1
06970	Titanium	7440-32-6	1,160	0.0701	0.988	1
10146	Zirconium	7440-67-7	8.12	0.454	4.94	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.430	0.0745	0.201	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.99	0.0806	0.403	2
06126	Barium	7440-39-3	98.1	0.107	0.403	2
06127	Beryllium	7440-41-7	0.397	0.0161	0.101	2
06128	Cadmium	7440-43-9	0.351	0.0443	0.101	2
06131	Chromium	7440-47-3	63.1	0.121	0.403	2
06132	Cobalt	7440-48-4	11.7	0.0201	0.101	2
06133	Copper	7440-50-8	8.84	0.0806	0.403	2
06135	Lead	7439-92-1	48.0	0.0103	0.201	2
06138	Molybdenum	7439-98-7	0.906	0.0504	0.101	2
06139	Nickel	7440-02-0	19.4	0.101	0.403	2
06141	Selenium	7782-49-2	0.275 J	0.0584	0.403	2
06142	Silver	7440-22-4	0.0541 J	0.0143	0.101	2
06145	Thallium	7440-28-0	0.197	0.0302	0.101	2
06148	Vanadium	7440-62-2	118	0.0222	0.101	2
06149	Zinc	7440-66-6	82.3	0.564	3.02	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0115 J	0.0066	0.0943	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.9	0.82	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.51	0.0100	0.0100	1

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

Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419504
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

DUP01 SDG#: DE253-12FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	0.73	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	11277SLC026	10/06/2011 16:40	Linda M Hartenstine	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274SLG026	10/11/2011 02:16	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11274SLG026	10/04/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11277SLC026	10/05/2011 07:35	Katheryne V Sponheimer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112770013A	10/06/2011 06:05	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112780013A	10/10/2011 21:49	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112740010A	10/04/2011 18:39	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112780013A	10/05/2011 18:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112740010A	10/03/2011 16:15	JoElla L Rice	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112770013A	10/05/2011 02:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112715708001	10/07/2011 18:28	John P Hook	1
07914	Boron	SW-846 6010B	1	112715708001	10/07/2011 08:41	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112715708001	10/07/2011 18:28	John P Hook	1
01654	Iron	SW-846 6010B	1	112715708001	10/07/2011 18:28	John P Hook	1
01656	Lithium	SW-846 6010B	1	112715708001	10/07/2011 18:28	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112715708001	10/07/2011 18:28	John P Hook	1
06958	Manganese	SW-846 6010B	1	112715708001	10/07/2011 08:41	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112715708001	10/07/2011 08:41	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112715708001	10/07/2011 18:28	John P Hook	1
01667	Sodium	SW-846 6010B	1	112715708001	10/07/2011 18:28	John P Hook	1
07968	Strontium	SW-846 6010B	1	112715708001	10/07/2011 08:41	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112715708001	10/07/2011 08:41	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112715708001	10/07/2011 08:41	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112715708001	10/10/2011 14:16	Eric L Eby	1

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

Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419504
LLI Group # 1268378
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/20/2011 12:55

Suite 210

Chantilly VA 20151

DUP01 SDG#: DE253-12FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06124	Antimony	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112711026001D	09/29/2011 13:30	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112711026001A	09/29/2011 17:48	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112711026001C	09/29/2011 13:30	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112711026001B	09/29/2011 13:30	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112711026001A	09/29/2011 13:30	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112715711003	09/29/2011 09:40	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112715708001	09/28/2011 22:05	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112711026001	09/28/2011 22:07	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112715711003	09/29/2011 01:10	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11276621201B	10/05/2011 15:27	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621201B	10/05/2011 21:42	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11278243201A	10/06/2011 21:42	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11276621201B	10/03/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621201B	10/04/2011 08:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11283039401B	10/10/2011 13:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11278243201A	10/05/2011 13:05	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/20/11 at 12:55 PM

Group Number: 1268378

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11274SLG026	Sample number(s): 6419488-6419493, 6419497-6419504								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	97		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	89		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	94		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	96		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	106		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	101		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	102		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	103		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	106		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	97		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	103		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	97		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	98		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	105		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	100		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	97		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	101		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	85		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	85		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	86		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	79		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	109		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	90		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	93		72-119		
Batch number: 11277SLC026	Sample number(s): 6419488-6419493, 6419497-6419504								
Acenaphthene	17 U	17.	170	ug/kg	99		76-111		
Acenaphthylene	17 U	17.	170	ug/kg	105		75-122		
Aniline	170 U	170.	500	ug/kg	62		20-115		
Anthracene	17 U	17.	170	ug/kg	106		76-112		
Benzidine	1,200 U	1,200.	3,300	ug/kg	45		15-121		
Benzo(a)anthracene	17 U	17.	170	ug/kg	107		73-112		
Benzo(a)pyrene	17 U	17.	170	ug/kg	107		65-124		
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	115		61-127		
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	116		60-125		
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	99		67-125		
Benzoic acid	170 U	170.	500	ug/kg	68		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	88		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	96		73-114		
Butylbenzylphthalate	17 U	17.	170	ug/kg	109		75-115		

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/20/11 at 12:55 PM

Group Number: 1268378

<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>
Di-n-butylphthalate	17 U	17.	170	ug/kg	104		79-112		
Carbazole	17 U	17.	170	ug/kg	106		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	57		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	92		70-118		
bis(2-Chloroethyl) ether	17 U	17.	170	ug/kg	87		70-104		
bis(2-Chloroisopropyl) ether	17 U	17.	170	ug/kg	79		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	95		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	91		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	89		74-115		
Chrysene	17 U	17.	170	ug/kg	105		76-113		
Dibenz(a,h)anthracene	17 U	17.	170	ug/kg	116		61-126		
Dibenzofuran	17 U	17.	170	ug/kg	95		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	81		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	81		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	76		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	62		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	95		75-111		
Diethylphthalate	17 U	17.	170	ug/kg	99		76-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	97		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	100		83-120		
Dimethylphthalate	17 U	17.	170	ug/kg	96		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	43*		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	19		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	106		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	103		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	107		75-117		
Fluoranthene	17 U	17.	170	ug/kg	109		78-116		
Fluorene	17 U	17.	170	ug/kg	99		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	92		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	81		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	78		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	80		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	117		64-119		
Isophorone	17 U	17.	170	ug/kg	94		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	88		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	94		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	90		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	86		66-117		
Naphthalene	17 U	17.	170	ug/kg	91		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	94		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	90		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	73		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	96		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	98		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	90		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	80		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	81		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	104		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	100		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	80		51-117		

*- Outside of specification

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(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: 10/20/11 at 12:55 PM

Group Number: 1268378

<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>
Phenanthrene	17 U	17.	170	ug/kg	102		77-113		
Phenol	17 U	17.	170	ug/kg	86		58-112		
Pyrene	17 U	17.	170	ug/kg	102		75-115		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	86		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	99		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	101		78-111		

Batch number: 112770013A	Sample number(s): 6419488-6419493,6419495-6419504								
2,4-D	1.2 U	1.2	3.6	ug/kg	109		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	71		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	95		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	88		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	9*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	113		62-170		
MCPA	76 U	76.	250	ug/kg	80		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	72		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	101		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	88		68-114		

Batch number: 112740010A	Sample number(s): 6419488-6419493,6419495-6419504								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	69	73	36-106	5	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	84		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	95		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					

Batch number: 112780013A	Sample number(s): 6419488-6419493,6419495-6419504								
Aldrin	0.066 U	0.066	0.17	ug/kg	88		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	106		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	136		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	135		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	120		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	113		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	112		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	76		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	105		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	129		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	110		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	103		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	117		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	91		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	120		59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					

Batch number: 112711026001A	Sample number(s): 6419488-6419494,6419497-6419504								
Antimony	0.0740 U	0.0740	0.200	mg/kg	101		10-224		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/20/11 at 12:55 PM

Group Number: 1268378

<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>
Arsenic	0.0800 U	0.0800	0.400	mg/kg	104		78-122		
Beryllium	0.0160 U	0.0160	0.100	mg/kg	103		80-120		
Cadmium	0.0440 U	0.0440	0.100	mg/kg	105		81-119		
Chromium	0.120 U	0.120	0.400	mg/kg	113		77-123		
Cobalt	0.0200 U	0.0200	0.100	mg/kg	99		80-119		
Copper	0.0800 U	0.0800	0.400	mg/kg	101		78-122		
Lead	0.0102 U	0.0102	0.200	mg/kg	106		77-123		
Nickel	0.100 U	0.100	0.400	mg/kg	108		80-120		
Silver	0.0142 U	0.0142	0.100	mg/kg	106		66-134		
Thallium	0.0300 U	0.0300	0.100	mg/kg	107		75-124		
Vanadium	0.0220 U	0.0220	0.100	mg/kg	114		76-124		
Zinc	0.560 U	0.560	3.00	mg/kg	107		79-121		
Batch number: 112711026001B	Sample number(s): 6419488-6419494, 6419497-6419504								
Selenium	0.0580 U	0.0580	0.400	mg/kg	109		77-123		
Batch number: 112711026001C	Sample number(s): 6419488-6419494, 6419497-6419504								
Molybdenum	0.0500 U	0.0500	0.100	mg/kg	109		76-123		
Batch number: 112711026001D	Sample number(s): 6419488-6419494, 6419497-6419504								
Barium	0.106 U	0.106	0.400	mg/kg	106		80-120		
Batch number: 112715708001	Sample number(s): 6419488-6419494, 6419497-6419504								
Aluminum	8.80 J	6.05	20.0	mg/kg	143		42-158		
Boron	0.527 J	0.360	5.00	mg/kg	106		66-134		
Calcium	7.97 J	2.50	20.0	mg/kg	105		79-121		
Iron	12.9 J	2.61	20.0	mg/kg	140		51-149		
Lithium	0.62 U	0.62	2.0	mg/kg	102		80-120		
Magnesium	1.96 J	0.440	10.0	mg/kg	122		64-136		
Manganese	0.0430 J	0.0360	0.500	mg/kg	102		78-122		
Phosphorus	1.09 J	0.350	10.0	mg/kg	104		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	114		69-131		
Sodium	5.95 U	5.95	100	mg/kg	115		71-129		
Strontium	0.0680 J	0.0250	0.500	mg/kg	104		81-119		
Tin	1.38 J	0.320	10.0	mg/kg	101		74-126		
Titanium	0.0710 U	0.0710	1.00	mg/kg	87		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	104		80-120		
Batch number: 112715711003	Sample number(s): 6419488-6419494, 6419497-6419504								
Mercury	0.0069 U	0.0069	0.0979	mg/kg	100		72-128		
Batch number: 11276621201A	Sample number(s): 6419488-6419492, 6419494, 6419497-6419502								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	90		90-110		
Batch number: 11276621201B	Sample number(s): 6419503-6419504								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	90		90-110		
Batch number: 11277621201A	Sample number(s): 6419488-6419492, 6419494, 6419497-6419501								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	114		85-115		
Batch number: 11277621201B	Sample number(s): 6419502-6419504								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	114		85-115		
Batch number: 11278243201A	Sample number(s): 6419488-6419492, 6419494, 6419497-6419504								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	90		80-120		
Batch number: 11283039401A	Sample number(s): 6419488-6419491, 6419494, 6419497-6419500								
17a pH by 9045C					100		95-105		

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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: 10/20/11 at 12:55 PM

Group Number: 1268378

<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: 11283039401B 17a pH by 9045C	Sample number(s): 6419501-6419504				100		95-105		
Batch number: 11273162401B 28a Moisture Content by 160.3	Sample number(s): 6419488-6419495,6419497-6419504				100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11274SLG026	Sample number(s): 6419488-6419493,6419497-6419504 UNSPK: 6419491								
Acenaphthene	93	93	63-105	0	30				
Acenaphthylene	87	93	67-114	6	30				
Anthracene	94	99	73-115	5	30				
Benzo(a)anthracene	95	98	59-128	3	30				
Benzo(a)pyrene	101	100	58-142	1	30				
Benzo(b)fluoranthene	96	94	54-163	2	30				
Benzo(g,h,i)perylene	66	71	33-141	8	30				
Benzo(k)fluoranthene	111	107	57-153	4	30				
Butylbenzylphthalate	138	123	57-173	12	30				
Di-n-butylphthalate	114	115	65-148	1	30				
Chrysene	99	96	67-123	4	30				
Dibenz(a,h)anthracene	73	82	22-133	12	30				
Diethylphthalate	94	99	70-136	6	30				
Dimethylphthalate	98	101	74-118	3	30				
Bis(2-Ethylhexyl)phthalate	197*	153	39-167	21	30				
Fluoranthene	113	103	51-149	9	30				
Fluorene	94	100	66-122	6	30				
Indeno(1,2,3-cd)pyrene	73	80	21-143	8	30				
1-Methylnaphthalene	87	89	72-123	3	30				
2-Methylnaphthalene	87	89	64-103	2	30				
Naphthalene	87	90	61-102	3	30				
N-Nitrosodimethylamine	83	87	48-113	5	30				
Di-n-octylphthalate	157	124	40-192	21	30				
Phenanthrene	95	94	62-122	2	30				
Pyrene	101	93	51-131	9	30				
Batch number: 11277SLC026	Sample number(s): 6419488-6419493,6419497-6419504 UNSPK: 6419491								
Acenaphthene	102	96	75-115	4	30				
Acenaphthylene	110	105	81-110	3	30				
Aniline	61	62	18-116	3	30				
Anthracene	108	103	75-115	4	30				
Benazidine	0*	0*	35-141	0	30				
Benzo(a)anthracene	105	104	65-122	0	30				
Benzo(a)pyrene	101	103	57-126	3	30				
Benzo(b)fluoranthene	104	102	59-125	1	30				
Benzo(g,h,i)perylene	112	115	59-127	4	30				
Benzo(k)fluoranthene	96	97	56-132	2	30				

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/20/11 at 12:55 PM

Group Number: 1268378

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Benzoic acid	57	40	10-173	34*	30			
Benzyl alcohol	98	95	67-115	2	30			
4-Bromophenyl-phenylether	102	98	67-129	3	30			
Butylbenzylphthalate	109	108	73-134	1	30			
Di-n-butylphthalate	104	100	67-123	3	30			
Carbazole	104	100	64-120	3	30			
4-Chloro-3-methylphenol	98	99	62-122	2	30			
4-Chloroaniline	41	38	13-107	7	30			
bis(2-Chloroethoxy)methane	93	91	75-104	2	30			
bis(2-Chloroethyl)ether	90	89	60-116	1	30			
bis(2-Chloroisopropyl)ether	84	81	55-142	2	30			
2-Chloronaphthalene	88	81	50-141	8	30			
2-Chlorophenol	99	98	73-121	0	30			
4-Chlorophenyl-phenylether	94	87	80-109	6	30			
Chrysene	101	99	62-128	1	30			
Dibenz(a,h)anthracene	115	114	65-125	1	30			
Dibenzofuran	98	93	71-112	4	30			
1,2-Dichlorobenzene	82	83	66-108	3	30			
1,3-Dichlorobenzene	81	82	63-109	3	30			
1,4-Dichlorobenzene	80	81	58-108	3	30			
3,3'-Dichlorobenzidine	62	65	28-109	6	30			
2,4-Dichlorophenol	97	95	66-123	1	30			
Diethylphthalate	98	92	66-118	4	30			
2,4-Dimethylphenol	101	97	68-118	2	30			
3,5-Dimethylphenol	97	95	71-127	0	30			
Dimethylphthalate	99	90	64-118	8	30			
4,6-Dinitro-2-methylphenol	63	55	11-126	12	30			
2,4-Dinitrophenol	34	23	20-143	36*	30			
2,4-Dinitrotoluene	92	87	56-129	5	30			
2,6-Dinitrotoluene	99	97	69-123	1	30			
1,2-Diphenylhydrazine	109	106	71-129	2	30			
bis(2-Ethylhexyl)phthalate	113	110	63-122	2	30			
Fluoranthene	106	100	73-112	4	30			
Fluorene	104	96	63-121	6	30			
Hexachlorobenzene	93	92	77-114	0	30			
Hexachlorobutadiene	84	83	62-120	0	30			
Hexachlorocyclopentadiene	49	42	10-153	13	30			
Hexachloroethane	74	77	57-109	5	30			
Indeno(1,2,3-cd)pyrene	115	119	61-126	4	30			
Isophorone	94	93	73-102	0	30			
1-Methylnaphthalene	91	92	64-122	2	30			
2-Methylnaphthalene	96	95	76-114	0	30			
2-Methylphenol	99	96	75-111	1	30			
4-Methylphenol	94	88	59-123	5	30			
Naphthalene	93	93	72-116	1	30			
2-Nitroaniline	96	90	67-125	6	30			
3-Nitroaniline	91	86	59-122	5	30			
4-Nitroaniline	82	67	41-109	19	30			
Nitrobenzene	94	98	57-125	5	30			
2-Nitrophenol	97	97	56-127	2	30			
4-Nitrophenol	92	86	37-129	6	30			
N-Nitroso-di-n-propylamine	86	86	60-116	2	30			
N-Nitrosodimethylamine	85	83	47-116	1	30			

*- Outside of specification

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

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/20/11 at 12:55 PM

Group Number: 1268378

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	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
N-Nitrosodiphenylamine	110	105	71-122	3	30				
Di-n-octylphthalate	99	98	56-126	0	30				
Pentachlorophenol	46	68	28-127	39*	30				
Phenanthrene	102	99	65-125	1	30				
Phenol	95	92	58-126	2	30				
Pyrene	100	101	74-126	2	30				
1,2,4-Trichlorobenzene	87	89	72-115	3	30				
2,4,5-Trichlorophenol	98	94	58-129	2	30				
2,4,6-Trichlorophenol	109	98	56-134	10	30				
Batch number: 112770013A Sample number(s): 6419488-6419493,6419495-6419504 UNSPK: 6419491									
2,4-D	229*	63	17-180	114*	35				
Dalapon	22	0*	10-125	200*	50				
2,4-DB	0*	0*	10-201	0	50				
Dicamba	0*	0*	10-190	0	50				
Dinoseb	0*	6*	10-46	200*	35				
2,4-DP (Dichlorprop)	0*	0*	33-178	0	50				
MCPA	0*	0*	10-213	0	50				
MCPP (Mecoprop)	0*	0*	10-184	0	50				
2,4,5-T	58	51	10-156	13	35				
2,4,5-TP	0*	0*	24-141	0	35				
Batch number: 112740010A Sample number(s): 6419488-6419493,6419495-6419504 UNSPK: 6419491									
PCB-1016	80	80	29-146	0	50				
PCB-1260	43	47	39-149	4	50				
Batch number: 112780013A Sample number(s): 6419488-6419493,6419495-6419504 UNSPK: 6419491									
Aldrin	61	67	16-126	10	50				
Alpha BHC	62	65	10-129	5	50				
Beta BHC	41	53	14-147	27	50				
Gamma BHC - Lindane	74	82	10-140	11	50				
p,p-DDD	0*	91	16-163	200*	50				
p,p-DDE	58	88	18-161	19	50				
p,p-DDT	35	49	10-176	7	50				
Delta BHC	81	88	23-140	7	50				
Dieldrin	69	76	19-154	10	50				
Endosulfan I	74	68	16-137	8	50				
Endosulfan II	86	66	28-154	26	50				
Endosulfan Sulfate	72	89	21-160	21	50				
Endrin	90	88	11-149	2	50				
Endrin Aldehyde	0*	20	10-148	26	35				
Endrin Ketone	86	85	22-165	2	50				
Heptachlor	68	74	13-126	8	50				
Heptachlor Epoxide	124	100	13-157	22	50				
Methoxychlor	55	61	32-147	11	50				
Batch number: 112711026001A Sample number(s): 6419488-6419494,6419497-6419504 UNSPK: 6419491 BKG: 6419491									
Antimony	54*	50*	75-125	5	20	0.433	0.397	9 (1)	20
Arsenic	187*	150*	75-125	7	20	7.31	7.26	1	20
Beryllium	81	76	75-125	4	20	0.399	0.375	6 (1)	20
Cadmium	143*	143*	75-125	1	20	0.292	0.229	24* (1)	20
Chromium	181 (2)	164 (2)	75-125	3	20	53.8	51.7	4	20
Cobalt	112	113	75-125	0	20	7.37	6.84	8	20

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/20/11 at 12:55 PM

Group Number: 1268378

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Copper	131*	134*	75-125	1	20	7.32	7.11	3	20
Lead	7 (2)	117 (2)	75-125	8	20	39.8	35.7	11	20
Nickel	147*	143*	75-125	2	20	14.0	12.9	8	20
Silver	139*	140*	75-125	0	20	0.0369 J	0.0344 J	7 (1)	20
Thallium	134*	141*	75-125	3	20	0.171	0.158	7 (1)	20
Vanadium	213 (2)	202 (2)	75-125	1	20	97.4	94.9	3	20
Zinc	123 (2)	131 (2)	75-125	1	20	72.2	70.2	3	20
Batch number: 112711026001B	Sample number(s): 6419488-6419494,6419497-6419504 UNSPK: 6419491 BKG: 6419491								
Selenium	137*	135*	75-125	2	20	0.255 J	0.242 J	5 (1)	20
Batch number: 112711026001C	Sample number(s): 6419488-6419494,6419497-6419504 UNSPK: 6419491 BKG: 6419491								
Molybdenum	145*	147*	75-125	0	20	0.752	0.703	7	20
Batch number: 112711026001D	Sample number(s): 6419488-6419494,6419497-6419504 UNSPK: 6419491 BKG: 6419491								
Barium	133 (2)	131 (2)	75-125	0	20	68.9	63.6	8	20
Batch number: 112715708001	Sample number(s): 6419488-6419494,6419497-6419504 UNSPK: 6419491 BKG: 6419491								
Aluminum	948 (2)	956 (2)	75-125	0	20	12,100	12,000	0	20
Boron	92	94	84-115	2	20	7.44	7.66	3 (1)	20
Calcium	335 (2)	259 (2)	75-125	5	20	5,120	5,130	0	20
Iron	330 (2)	763 (2)	75-125	2	20	22,700	23,000	1	20
Lithium	97	97	82-114	0	20	16.1	16.4	2	20
Magnesium	144 (2)	192 (2)	75-125	2	20	5,590	5,630	1	20
Manganese	105 (2)	123 (2)	75-125	2	20	303	291	4	20
Phosphorus	103 (2)	93 (2)	75-125	1	20	872	873	0	20
Potassium	124	125	75-125	0	20	1,750	1,760	1	20
Sodium	101	101	75-125	0	20	123	123	0 (1)	20
Strontium	98	99	75-115	1	20	21.8	21.7	1	20
Tin	91	91	80-110	1	20	2.98 J	3.08 J	3 (1)	20
Titanium	529 (2)	548 (2)	75-125	1	20	1,230	1,270	2	20
Zirconium	94	94	81-110	0	20	12.4	13.1	5 (1)	20
Batch number: 112715711003	Sample number(s): 6419488-6419494,6419497-6419504 UNSPK: 6419491 BKG: 6419491								
Mercury	79	91	65-135	15	20	0.0132 J	0.0068 U	200* (1)	20
Batch number: 11276621201A	Sample number(s): 6419488-6419492,6419494,6419497-6419502 UNSPK: 6419491 BKG: 6419491								
11a Anions by 300.0 - Fluoride	50*		80-120			4.5	3.5	27* (1)	20
Batch number: 11276621201B	Sample number(s): 6419503-6419504 UNSPK: 6419503 BKG: 6419503								
11a Anions by 300.0 - Fluoride	76*		80-120			1.2	1.9	42* (1)	20
Batch number: 11277621201A	Sample number(s): 6419488-6419492,6419494,6419497-6419501 UNSPK: 6419491 BKG: 6419491								
7a Perchlorate EPA 314.0	115		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11277621201B	Sample number(s): 6419502-6419504 UNSPK: P419519 BKG: P419519								
7a Perchlorate EPA 314.0	112		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11278243201A	Sample number(s): 6419488-6419492,6419494,6419497-6419504 UNSPK: 6419491 BKG: 6419491								
3a Cr VI by EPA 7199	85		75-125			0.20 U	0.20 U	0 (1)	20

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/20/11 at 12:55 PM

Group Number: 1268378

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: 11283039401A 17a pH by 9045C	Sample number(s): 6419488-6419491, 6419494, 6419497-6419500 BKG: 6419491 6.04 6.06 0 3								
Batch number: 11283039401B 17a pH by 9045C	Sample number(s): 6419501-6419504 BKG: P419519 8.19 8.19 0 3								
Batch number: 11273162401B 28a Moisture Content by 160.3	Sample number(s): 6419488-6419495, 6419497-6419504 BKG: 6419491 0.67 0.62 7 (1) 20								
Moisture Content by 160.3	0.67 0.62 7 (1) 20								
Moisture Content by 160.3	0.67 0.62 7 (1) 20								

Surrogate Quality Control

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

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11274SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6419488	92	85	91
6419489	98	89	92
6419490	99	88	92
6419491	80	71	72
6419492	103	84	88
6419493	100	84	88
6419497	99	90	97
6419498	91	84	95
6419499	95	87	90
6419500	94	84	93
6419501	62	67	119
6419502	91	84	90
6419503	80	73	94
6419504	84	80	90
Blank	89	83	50
LCS	97	84	90
MS	103	84	88
MSD	100	84	88
Limits:	40-130	45-130	45-135

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11277SLC026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6419488	99	104	90	91	91	88
6419489	102	107	80	92	94	87
6419490	91	95	89	84	89	84
6419491	91	97	82	92	96	86

*- Outside of specification

** - This limit was used in 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: 10/20/11 at 12:55 PM

Group Number: 1268378

Surrogate Quality Control

6419492	97	102	87	93	98	84
6419493	96	102	81	94	92	86
6419497	102	105	89	87	108	94
6419498	82	85	77	79	79	76
6419499	94	97	78	87	91	84
6419500	90	92	83	83	83	82
6419501	90	98	81	89	92	81
6419502	100	102	85	91	92	85
6419503	95	97	86	91	93	84
6419504	99	103	89	93	95	85
Blank	101	109	90	100	108	97
LCS	89	95	90	92	91	86
MS	97	102	87	93	98	84
MSD	96	102	81	94	92	86

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

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 112740010A

Tetrachloro-m-xylene Decachlorobiphenyl

6419488	94	95
6419489	95	93
6419490	92	93
6419491	91	82
6419492	91	92
6419493	89	84
6419495	95	94
6419496	98	101
6419497	94	138*
6419498	84	86
6419499	92	86
6419500	90	88
6419501	70	68
6419502	90	89
6419503	81	75
6419504	86	84
Blank	90	96
LCS	92	97
LCSD	97	106
MS	91	92
MSD	89	84

Limits:	53-139	45-120

Analysis Name: 13a Herbicides by EPA 8151

Batch number: 112770013A

2,4-Dichlorophenylacetic
acid

6419488	106
6419489	109
6419490	82
6419491	118
6419492	116
6419493	103
6419495	113

*- Outside of specification

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(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: 10/20/11 at 12:55 PM

Group Number: 1268378

Surrogate Quality Control

6419496 79
6419497 98
6419498 69
6419499 80
6419500 96
6419501 121
6419502 100
6419503 88
6419504 119
Blank 92
LCS 91
MS 116
MSD 103

Limits: 36-156

Analysis Name: 12a Pesticides by 8081A

Batch number: 112780013A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6419488	77	123*
6419489	54	77
6419490	78	102
6419491	80	116
6419492	62	90
6419493	64	100
6419495	69	110
6419496	85	88
6419497	142*	1601*
6419498	58	0*
6419499	63	145*
6419500	64	74
6419501	60	80
6419502	58	70
6419503	65	83
6419504	59	104
Blank	85	125*
LCS	84	128*
MS	62	90
MSD	64	100

Limits: 50-130 20-120

*- Outside of specification

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

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

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

CHAIN OF CUSTODY RECORD

18013/1723312/G419488-504

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes Revised COC	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 601/602/20B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*TbH EPA 8045C/8040B	Perchlorate Confirmation by EPA 8850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	*VOCs EPA 8260B \$		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-SS Sleeve			X	X										
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-SS Sleeve			X	X										
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-SS Sleeve			X	X										
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-001-SA5D-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-SS Sleeves			X	X								MS/MSD sample		
SL-001-SA5D-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-16 oz. jars	X	X			X	X	X	X		X	X	MS/MSD sample		
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	2-Encores												x PC PB KINGSDOM		
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-SS Sleeve			X	X										
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-027-SA5DS-SS-0.0-0.5	9/26/11	0925	SOIL	NONE	1-SS Sleeve			X	X										
SL-027-SA5DS-SS-0.0-0.5	9/26/11	0925	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-SS Sleeve			X	X										
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-SS Sleeve			X	X										
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-SS Sleeve			X	X										
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1150	SOIL	NONE	1-SS Sleeve			X	X										
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1150	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-SS Sleeve			X	X										
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
DUP01-SA5DS-QC-092611	9/26/11	1510	SOIL	NONE	1-SS Sleeve			X	X										
DUP01-SA5DS-QC-092611	9/26/11	1510	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)														Laboratory:	
		09/26/2011 / 1630																Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No.(s)															
				8767 9858 3428; 8767 9858 3439 8767 9858 3440															

CHAIN OF CUSTODY RECORD

13013/1268378/G419488-504

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS				SS ONLY		SECONDARY FOR ALL LOCATIONS												Other Instructions and Notes							
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.2 will be performed on soil in 16 oz. Jar collected from the same interval from which Encores were collected For samples collected from Subarea 5 (SA5) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																															
Samplers Signatures:																								Revised COC							
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	Metalis EPA 8010/8203/8747A	Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	PCBs/PC's EPA 8082	*Dioxin/furan EPA 1631B	*Perchlorate EPA 314.0	Hex Chlorine EPA 7199	pH EPA 8045C/9040B	Perchlorate Confirmation by EPA 8950 (10%)	*Pesticides EPA 8081 (surface soil only)	*Herbicides EPA 8151 (surface soil only)	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-CRO EPA 8015B \$	*TPH-EH EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*m-NOMA EPA 1625C			*Emergentics EPA 8330A	*Cyanide EPA 9012B	*Tetraphenyle EPA 9015B	*Glycols EPA 8015B	*Alcohols EPA 8015B	*Downal EPA 8270
SL-102-SA7-SB-4.5MS	9/26/11	0905	SOIL	NONE	4-Encores														X												2 Extra Encores collected
SL-102-SA7-SB-4.0-5.0MS	9/26/11	0910	SOIL	NONE	9-16 oz Jars	X	X	X	X	X	X	X	X						X	X	X	X				X	X	X	X		MS/MSD Sample
SL-102-SA7-SB-9.5	9/26/11	0933	SOIL	NONE	2-Encores													X													MS/MSD Sample
SL-102-SA7-SB-9.0-10.0	9/26/11	0930	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X						X	X	X	X				X	X	X	X		
SL-109-SA7-SB-4.5	9/26/11	1210	SOIL	NONE	2-Encores													X													
SL-109-SA7-SB-4.0-5.0	9/26/11	1213	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X						X	X	X	X				X	X	X	X		
SL-109-SA7-SB-9.5	9/26/11	1218	SOIL	NONE	2-Encores													X													
SL-109-SA7-SB-9.0-10.0	9/26/11	1220	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X						X	X	X	X				X	X	X	X		
SL-125-SA7-SB-4.0-5.0MS	9/26/11	1452	SOIL	NONE	6-16 oz jars	X	X	X	X	X	X	X	X																		MS/MSD Sample
SL-170-SA7-SB-4.5	9/26/11	1110	SOIL	NONE	2-Encores													X													
SL-170-SA7-SB-4.0-5.0	9/26/11	1115	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X						X	X	X	X				X	X	X	X		
SL-170-SA7-SB-9.5	9/26/11	1123	SOIL	NONE	2-Encores													X													
SL-170-SA7-SB-9.0-10.0	9/26/11	1130	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X						X	X	X	X				X	X	X	X		
DUP007-SA7-QC-092611	9/26/11	0923	SOIL	NONE	8-Encores													X													
DUP007-SA7-QC-092611	9/26/11	0923	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X						X	X	X	X				X	X	X	X		
DUP008-SA7-QC-092611	9/26/11	1500	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																		
TB-092611	9/26/11	1430	WATER	NONE	2-40mL vials													X													
Relinquished by: (Signature)			Date/Time			Received for Laboratory by: (Signature)																					Laboratory:				
			09/19/2011 / 1500																								Lancaster Laboratories, Inc.				
Received by: (Signature)			Date/Time			Airbill No.(s)																									
						8767 9858 3428; 8767 9858 3439 8767 9858 3440																									

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SS ONLY		Other instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 6010/6020B&471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 8045C/8040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8031A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	VOCs/EPA 8260B \$	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-SS Sleeve			X	X									
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-SS Sleeve			X	X									
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-SS Sleeve			X	X									
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-021-SA5D-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-SS Sleeves			X	X							MS/MSD sample		
SL-021-SA5D-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X	X	X	MS/MSD sample		
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	2-Encores											X		
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-SS Sleeve			X	X									
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-027-SA5DS-SS-0.0-0.5	9/26/11	0925	SOIL	NONE	1-SS Sleeve			X	X									
SL-027-SA5DS-SS-0.0-0.5	9/26/11	0925	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-SS Sleeve			X	X									
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-SS Sleeve			X	X									
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-SS Sleeve			X	X									
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1150	SOIL	NONE	1-SS Sleeve			X	X									
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1150	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-SS Sleeve			X	X									
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
DUP01-SA5DS-QC-092611	9/26/11	1510	SOIL	NONE	1-SS Sleeve			X	X									
DUP01-SA5DS-QC-092611	9/26/11	1510	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X	X			
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:				
		09/26/2011 / 1630												Lancaster Laboratories, Inc.				
Received by: (Signature)		Date/Time		Air Bill No(s)														
				8767 9858 3428; 8767 9858 3439 8767 9858 3440														

Nicole Maljovec

From: Bloisa, Peggy [BloisaMJ@cdm.com]
Sent: Thursday, September 29, 2011 10:22 AM
To: Nicole Maljovec; SA Env Entry
Cc: Hartman, Pamela
Subject: RE: SSFL COC for 9/28
Attachments: COC_09_28_11 revised.xlsx

I have revised the Subarea 5D South COC from yesterday to include samples for perchlorate confirmation. See attached.

Also I will not be submitting the encores associated with sample SA-026-SA5DS-SS-0.0-0.5 included on the COC dated 9/26.

Thanks! Peggy

From: Bloisa, Peggy
Sent: Wednesday, September 28, 2011 5:42 PM
To: 'Nicole Maljovec'; 'SA Env Entry'
Cc: Burgesser, Todd; Zakowski, Cherie; 'Laura Rainey'; Hartman, Pamela
Subject: RE: SSFL COC for 9/28

Attached is COC for 9/28/11. Surface sampling was completed in Subarea 5D South today.

Peggy

Peggy Bloisa, P.G.
CDM
|100 Pringle Avenue Suite 300| Walnut Creek, CA 94596|
|Phone and Fax: (925) 296-8053|



Please consider the environment before printing this email.

9/30/2011

Nicole Maljovec

From: Bloisa, Peggy [BloisaMJ@cdm.com]
Sent: Tuesday, September 27, 2011 7:33 PM
To: Nicole Maljovec; SA Env Entry
Cc: Burgesser, Todd; Zakowski, Cherie; Laura Rainey; Hartman, Pamela
Subject: SSFL COCs for 9/26 and 9/27
Attachments: COC_09_27_11.xlsx; COC_09_26_11 revised.xlsx

Attached is today's COC and a revised COC for yesterday 9/26. The sample shown as SL-021-002-SA5DS-SS-0.0-0.5 collected at 1505 as shown on yesterdays COC should have been labeled as SL-001. The "real" SL-021 was sampled today.

Peggy

Peggy Bloisa, P.G.

CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |

| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

9/30/2011

Nicole Maljovec

From: Bloisa, Peggy [BloisaMJ@cdm.com]
Sent: Monday, September 26, 2011 8:50 PM
To: Nicole Maljovec; SA Env Entry
Subject: SSFL COC for 9/26/2011
Attachments: COC_09_26_11.xlsx

Hi Nicole – see attached COC. Four of the Encore samplers collected for SL-102-SA7-SB-4.5MS and the Encores (2 encore samplers) for SL-026-SA5DS-SS-0.0-0.5 did not get included in the coolers (found them after the courier left – it was a typical Monday).

The sampler for SL-026 didn't know to collect enough Encores for VOCs, dioxane, and TPH-GRO (should have been five) and I assumed ☹ he incorrectly collected the encores for TPH-GRO only. I will send the remaining encores for SL-102, but I am going to ask John tomorrow about the other location, and will let you know if he wants us to recollect those encores and resubmit them.

Thanks! Peggy

Peggy Bloisa, P.G.
CDM
|100 Pringle Avenue Suite 300| Walnut Creek, CA 94596|
|Phone and Fax: (925) 296-8053|



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9/30/2011

Explanation of Symbols and Abbreviations

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

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 18, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/27/2011

Group Number: 1268380

SDG: DX142

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-001-SA3-SS-0.0-0.5 Soil	6419507
SL-002-SA3-SS-0.0-0.5 Soil	6419508
SL-002-SA5DS-SS-0.0-0.5 Soil	6419509
SL-001-SA5DS-SS-0.0-0.5 Soil	6419510
SL-001-SA5DS-SS-0.0-0.5 MS Soil	6419511
SL-001-SA5DS-SS-0.0-0.5 MSD Soil	6419512
SL-026-SA5DS-SS-0.0-0.5 Soil	6419513
SL-027-SA5DS-SS-0.0-0.5 Soil	6419514
SL-028-SA5DS-SS-0.0-0.5 Soil	6419515
SL-029-SA5DS-SS-0.0-0.5 Soil	6419516
SL-030-SA5DS-SS-0.0-0.5 Soil	6419517
SL-031-SA5DS-SS-0.0-0.5 Soil	6419518

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

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

Attn: Todd Burgess

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

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

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Page 1 of 4

Sample Description: SL-001-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA3-SS-0.0-0.5

LLI Sample # SW 6419507
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 07:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD001 SDG#: DX142-11

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

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

Sample Description: SL-001-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA3-SS-0.0-0.5

LLI Sample # SW 6419507
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 07:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD001 SDG#: DX142-11

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	0.0640 JQ	0.0488	0.964	1
11031	12378-PeCDD	40321-76-4	0.142 JQ	0.0428	4.82	1
11031	123478-HxCDD	39227-28-6	0.183 J	0.0448	4.82	1
11031	123678-HxCDD	57653-85-7	0.534 JB	0.0433	4.82	1
11031	123789-HxCDD	19408-74-3	0.450 JBQ	0.0412	4.82	1
11031	1234678-HpCDD	35822-46-9	7.87 B	0.0516	4.82	1
11031	OCDD	3268-87-9	72.8 B	0.0573	9.64	1
11031	2378-TCDF	51207-31-9	0.186 JQ	0.0673	0.964	1
11031	12378-PeCDF	57117-41-6	0.0337 U	0.0337	4.82	1
11031	23478-PeCDF	57117-31-4	0.208 JBQ	0.0386	4.82	1
11031	123478-HxCDF	70648-26-9	0.287 JQ	0.0378	4.82	1
11031	123678-HxCDF	57117-44-9	0.215 JQ	0.0289	4.82	1
11031	123789-HxCDF	72918-21-9	0.147 JQ	0.0455	4.82	1
11031	234678-HxCDF	60851-34-5	0.365 JBQ	0.0344	4.82	1
11031	1234678-HpCDF	67562-39-4	2.15 JB	0.0216	4.82	1
11031	1234789-HpCDF	55673-89-7	0.135 JB	0.0563	4.82	1
11031	OCDF	39001-02-0	5.56 JB	0.0765	9.64	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	61	28 - 136
13C12-123789-HxCDF	55	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	46	26 - 138
13C12-OCDF	44	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-001-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA3-SS-0.0-0.5

LLI Sample # SW 6419507
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 07:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

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SD001 SDG#: DX142-11

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



Analysis Report

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Page 4 of 4

Sample Description: SL-001-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA3-SS-0.0-0.5

LLI Sample # SW 6419507
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 07:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD001 SDG#: DX142-11

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 04:39	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419508
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD002 SDG#: DX142-12

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

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

Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419508
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD002 SDG#: DX142-12

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	0.0470 U	0.0470	0.987	1
11031	12378-PeCDD	40321-76-4	0.0471 U	0.0471	4.94	1
11031	123478-HxCDD	39227-28-6	0.176 JQ	0.0513	4.94	1
11031	123678-HxCDD	57653-85-7	0.460 JB	0.0473	4.94	1
11031	123789-HxCDD	19408-74-3	0.312 JBQ	0.0404	4.94	1
11031	1234678-HpCDD	35822-46-9	7.87 B	0.0576	4.94	1
11031	OCDD	3268-87-9	81.3 B	0.0597	9.87	1
11031	2378-TCDF	51207-31-9	0.242 J	0.0768	0.987	1
11031	12378-PeCDF	57117-41-6	0.176 JBQ	0.0459	4.94	1
11031	23478-PeCDF	57117-31-4	0.236 JBQ	0.0461	4.94	1
11031	123478-HxCDF	70648-26-9	0.465 J	0.0430	4.94	1
11031	123678-HxCDF	57117-44-9	0.186 J	0.0361	4.94	1
11031	123789-HxCDF	72918-21-9	0.0486 U	0.0486	4.94	1
11031	234678-HxCDF	60851-34-5	0.244 JBQ	0.0400	4.94	1
11031	1234678-HpCDF	67562-39-4	2.10 JB	0.0250	4.94	1
11031	1234789-HpCDF	55673-89-7	0.122 JBQ	0.0460	4.94	1
11031	OCDF	39001-02-0	6.98 JB	0.0582	9.87	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	98	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419508
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

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SD002 SDG#: DX142-12

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



Analysis Report

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Page 4 of 4

Sample Description: SL-002-SA3-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA3-SS-0.0-0.5

LLI Sample # SW 6419508
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 08:15

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD002 SDG#: DX142-12

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 05:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419509
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD025 SDG#: DX142-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	2.1	0.50	0.50	1

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

Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419509
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD025 SDG#: DX142-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0574 JQ	0.0441	0.986	1
11031	12378-PeCDD	40321-76-4	0.152 JQ	0.0435	4.93	1
11031	123478-HxCDD	39227-28-6	0.154 JQ	0.0398	4.93	1
11031	123678-HxCDD	57653-85-7	0.529 JB	0.0403	4.93	1
11031	123789-HxCDD	19408-74-3	0.655 JB	0.0401	4.93	1
11031	1234678-HpCDD	35822-46-9	6.48 B	0.0526	4.93	1
11031	OCDD	3268-87-9	54.8 B	0.0503	9.86	1
11031	2378-TCDF	51207-31-9	0.642 JQ	0.0987	0.986	1
11031	12378-PeCDF	57117-41-6	0.473 JB	0.0492	4.93	1
11031	23478-PeCDF	57117-31-4	1.09 JB	0.0492	4.93	1
11031	123478-HxCDF	70648-26-9	0.480 JQ	0.0419	4.93	1
11031	123678-HxCDF	57117-44-9	0.224 JQ	0.0371	4.93	1
11031	123789-HxCDF	72918-21-9	0.459 JQ	0.0451	4.93	1
11031	234678-HxCDF	60851-34-5	0.401 JB	0.0396	4.93	1
11031	1234678-HpCDF	67562-39-4	1.39 JB	0.0202	4.93	1
11031	1234789-HpCDF	55673-89-7	0.132 JB	0.0316	4.93	1
11031	OCDF	39001-02-0	2.64 JB	0.0490	9.86	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419509
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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SD025 SDG#: DX142-13

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



Analysis Report

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Sample Description: SL-002-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419509
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 14:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

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SD025 SDG#: DX142-13

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 09:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419510
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD021 SDG#: DX142-14BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	0.67	0.50	0.50	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419510
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD021 SDG#: DX142-14BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0449 U	0.0449	0.987	1
11031	12378-PeCDD	40321-76-4	0.246 JQ	0.0485	4.94	1
11031	123478-HxCDD	39227-28-6	0.286 J	0.0527	4.94	1
11031	123678-HxCDD	57653-85-7	0.734 JB	0.0514	4.94	1
11031	123789-HxCDD	19408-74-3	0.789 JB	0.0528	4.94	1
11031	1234678-HpCDD	35822-46-9	13.6 B	0.0585	4.94	1
11031	OCDD	3268-87-9	135 B	0.0709	9.87	1
11031	2378-TCDF	51207-31-9	0.510 J	0.105	0.987	1
11031	12378-PeCDF	57117-41-6	1.23 JB	0.0636	4.94	1
11031	23478-PeCDF	57117-31-4	1.31 JB	0.0628	4.94	1
11031	123478-HxCDF	70648-26-9	0.260 J	0.0468	4.94	1
11031	123678-HxCDF	57117-44-9	0.419 J	0.0429	4.94	1
11031	123789-HxCDF	72918-21-9	0.120 JQ	0.0494	4.94	1
11031	234678-HxCDF	60851-34-5	0.314 JBQ	0.0438	4.94	1
11031	1234678-HpCDF	67562-39-4	2.62 JB	0.0303	4.94	1
11031	1234789-HpCDF	55673-89-7	0.221 JB	0.0487	4.94	1
11031	OCDF	39001-02-0	5.49 JB	0.0544	9.87	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419510
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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SD021 SDG#: DX142-14BKG

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

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



Analysis Report

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Page 4 of 4

Sample Description: SL-001-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419510
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD021 SDG#: DX142-14BKG

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 10:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419511
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD021 SDG#: DX142-14MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	0.67	0.50	0.50	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419511
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD021 SDG#: DX142-14MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.8	0.0564	1.00	1
11031	12378-PeCDD	40321-76-4	99.8	0.0625	5.01	1
11031	123478-HxCDD	39227-28-6	99.4	0.0701	5.01	1
11031	123678-HxCDD	57653-85-7	96.9	0.0661	5.01	1
11031	123789-HxCDD	19408-74-3	103	0.0553	5.01	1
11031	1234678-HpCDD	35822-46-9	108	0.0738	5.01	1
11031	OCDD	3268-87-9	334	0.0896	10.0	1
11031	2378-TCDF	51207-31-9	19.6	0.0999	1.00	1
11031	12378-PeCDF	57117-41-6	97.4	0.0612	5.01	1
11031	23478-PeCDF	57117-31-4	95.5	0.0620	5.01	1
11031	123478-HxCDF	70648-26-9	96.2	0.131	5.01	1
11031	123678-HxCDF	57117-44-9	95.8	0.111	5.01	1
11031	123789-HxCDF	72918-21-9	94.2	0.0785	5.01	1
11031	234678-HxCDF	60851-34-5	95.1	0.0686	5.01	1
11031	1234678-HpCDF	67562-39-4	92.4	0.0722	5.01	1
11031	1234789-HpCDF	55673-89-7	94.2	0.0942	5.01	1
11031	OCDF	39001-02-0	195	0.104	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	35	26 - 152
13C12-123678-HxCDF	41	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	60	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	54	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419511
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

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Chantilly VA 20151

SD021 SDG#: DX142-14MS

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

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



Analysis Report

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

Page 4 of 4

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419511
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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SD021 SDG#: DX142-14MS

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 11:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419512
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD021 SDG#: DX142-14MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	0.67	0.50	0.50	1

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

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419512
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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Chantilly VA 20151

SD021 SDG#: DX142-14MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.1	0.0555	1.00	1
11031	12378-PeCDD	40321-76-4	97.6	0.0598	5.02	1
11031	123478-HxCDD	39227-28-6	95.5	0.0774	5.02	1
11031	123678-HxCDD	57653-85-7	93.7	0.0725	5.02	1
11031	123789-HxCDD	19408-74-3	101	0.0652	5.02	1
11031	1234678-HpCDD	35822-46-9	105	0.0787	5.02	1
11031	OCDD	3268-87-9	322	0.0911	10.0	1
11031	2378-TCDF	51207-31-9	18.8	0.106	1.00	1
11031	12378-PeCDF	57117-41-6	95.5	0.0658	5.02	1
11031	23478-PeCDF	57117-31-4	92.7	0.0627	5.02	1
11031	123478-HxCDF	70648-26-9	89.1	0.135	5.02	1
11031	123678-HxCDF	57117-44-9	88.9	0.108	5.02	1
11031	123789-HxCDF	72918-21-9	90.3	0.0963	5.02	1
11031	234678-HxCDF	60851-34-5	91.2	0.0855	5.02	1
11031	1234678-HpCDF	67562-39-4	91.1	0.0614	5.02	1
11031	1234789-HpCDF	55673-89-7	92.4	0.0928	5.02	1
11031	OCDF	39001-02-0	184	0.105	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	95	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	51	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	70	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
 SSFL Area IV Collocated Soil Sampling
 SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419512
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD021 SDG#: DX142-14MSD

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



Analysis Report

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Sample Description: SL-001-SA5DS-SS-0.0-0.5 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419512
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD021 SDG#: DX142-14MSD

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 12:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419513
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

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Chantilly VA 20151

SD026 SDG#: DX142-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	1.4	0.50	0.50	1

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

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419513
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

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SD026 SDG#: DX142-15

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	0.426 U	0.426	9.85	1
11031	12378-PeCDD	40321-76-4	0.401 U	0.401	49.2	1
11031	123478-HxCDD	39227-28-6	0.285 U	0.285	49.2	1
11031	123678-HxCDD	57653-85-7	0.485 JBQ	0.283	49.2	1
11031	123789-HxCDD	19408-74-3	0.277 U	0.277	49.2	1
11031	1234678-HpCDD	35822-46-9	6.83 JB	0.373	49.2	1
11031	OCDD	3268-87-9	49.6 JB	0.406	98.5	1
11031	2378-TCDF	51207-31-9	1.10 JC	0.791	9.85	1
11031	12378-PeCDF	57117-41-6	3.87 JB	0.442	49.2	1
11031	23478-PeCDF	57117-31-4	9.93 JB	0.396	49.2	1
11031	123478-HxCDF	70648-26-9	11.3 JB	0.498	49.2	1
11031	123678-HxCDF	57117-44-9	3.91 JB	0.433	49.2	1
11031	123789-HxCDF	72918-21-9	3.86 J	0.406	49.2	1
11031	234678-HxCDF	60851-34-5	4.40 JB	0.379	49.2	1
11031	1234678-HpCDF	67562-39-4	5.02 JB	0.315	49.2	1
11031	1234789-HpCDF	55673-89-7	4.10 JB	0.320	49.2	1
11031	OCDF	39001-02-0	8.98 JB	0.436	98.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	51	26 - 152
13C12-123678-HxCDF	55	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	62	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419513
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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Chantilly VA 20151

SD026 SDG#: DX142-15

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

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



Analysis Report

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Page 4 of 4

Sample Description: SL-026-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419513
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD026 SDG#: DX142-15

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11285001	10/15/2011 12:15	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11285001	10/12/2011 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419514
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

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Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD027 SDG#: DX142-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.2	0.50	0.50	1

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

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419514
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD027 SDG#: DX142-16

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	0.128	U	0.128	0.973	1
11031	12378-PeCDD	40321-76-4	0.170	U	0.170	4.87	1
11031	123478-HxCDD	39227-28-6	0.158	U	0.158	4.87	1
11031	123678-HxCDD	57653-85-7	0.356	JBQ	0.154	4.87	1
11031	123789-HxCDD	19408-74-3	0.249	JBQ	0.145	4.87	1
11031	1234678-HpCDD	35822-46-9	9.15	B	0.186	4.87	1
11031	OCDD	3268-87-9	55.0	B	0.220	9.73	1
11031	2378-TCDF	51207-31-9	0.108	JQ	0.0936	0.973	1
11031	12378-PeCDF	57117-41-6	0.190	JBQ	0.0912	4.87	1
11031	23478-PeCDF	57117-31-4	0.427	JBQ	0.0845	4.87	1
11031	123478-HxCDF	70648-26-9	0.256	JQ	0.111	4.87	1
11031	123678-HxCDF	57117-44-9	0.105	U	0.105	4.87	1
11031	123789-HxCDF	72918-21-9	0.272	JQ	0.121	4.87	1
11031	234678-HxCDF	60851-34-5	0.372	JBQ	0.100	4.87	1
11031	1234678-HpCDF	67562-39-4	0.893	JBQ	0.153	4.87	1
11031	1234789-HpCDF	55673-89-7	0.597	JBQ	0.174	4.87	1
11031	OCDF	39001-02-0	2.01	JBQ	0.269	9.73	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419514
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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SD027 SDG#: DX142-16

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

Sample Description: SL-027-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-027-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419514
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD027 SDG#: DX142-16

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 14:18	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419515
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD028 SDG#: DX142-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	0.56	0.50	0.50	1

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

Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419515
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD028 SDG#: DX142-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0478 U	0.0478	0.971	1
11031	12378-PeCDD	40321-76-4	0.188 JQ	0.0524	4.85	1
11031	123478-HxCDD	39227-28-6	0.301 JQ	0.0925	4.85	1
11031	123678-HxCDD	57653-85-7	0.451 JBQ	0.0968	4.85	1
11031	123789-HxCDD	19408-74-3	0.320 JBQ	0.0916	4.85	1
11031	1234678-HpCDD	35822-46-9	7.10 B	0.201	4.85	1
11031	OCDD	3268-87-9	57.5 B	0.259	9.71	1
11650	2378-TCDF-Conf	51207-31-9	0.788 JC	0.0759	0.971	1
11031	12378-PeCDF	57117-41-6	0.179 JB	0.0744	4.85	1
11031	23478-PeCDF	57117-31-4	0.855 JB	0.0688	4.85	1
11031	123478-HxCDF	70648-26-9	0.594 J	0.139	4.85	1
11031	123678-HxCDF	57117-44-9	0.461 JQ	0.0888	4.85	1
11031	123789-HxCDF	72918-21-9	0.109 JQ	0.0640	4.85	1
11031	234678-HxCDF	60851-34-5	0.470 JB	0.0551	4.85	1
11031	1234678-HpCDF	67562-39-4	1.78 JB	0.174	4.85	1
11031	1234789-HpCDF	55673-89-7	0.156 JBQ	0.127	4.85	1
11031	OCDF	39001-02-0	3.00 JB	0.224	9.71	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-2378-TCDF-Conf	74	24 - 169
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	59	23 - 140
13C12-OCDD	37	17 - 157
13C12-12378-PeCDF	67	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	29	26 - 152
13C12-123678-HxCDF	46	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	39	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	34	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419515
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD028 SDG#: DX142-17

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

Sample Description: SL-028-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419515
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 10:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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SD028 SDG#: DX142-17

General Sample Comments

State of California Lab Certification No. 2501

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 15:14	Joseph D Anderson	1
11650	Dioxins/Furans in Solids- Conf	EPA 1613B	1	11278001	10/12/2011 22:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1



Analysis Report

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Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419516
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD029 SDG#: DX142-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	3.4	0.50	0.50	1

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

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419516
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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SD029 SDG#: DX142-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0467 U	0.0467	0.998	1
11031	12378-PeCDD	40321-76-4	0.0602 U	0.0602	4.99	1
11031	123478-HxCDD	39227-28-6	0.0913 JQ	0.0618	4.99	1
11031	123678-HxCDD	57653-85-7	0.121 JBQ	0.0635	4.99	1
11031	123789-HxCDD	19408-74-3	0.179 JBQ	0.0693	4.99	1
11031	1234678-HpCDD	35822-46-9	1.51 JB	0.104	4.99	1
11031	OCDD	3268-87-9	12.7 B	0.147	9.98	1
11031	2378-TCDF	51207-31-9	0.166 J	0.0778	0.998	1
11031	12378-PeCDF	57117-41-6	0.629 JB	0.0466	4.99	1
11031	23478-PeCDF	57117-31-4	0.655 JB	0.0464	4.99	1
11031	123478-HxCDF	70648-26-9	0.605 JQ	0.0552	4.99	1
11031	123678-HxCDF	57117-44-9	0.336 JQ	0.0459	4.99	1
11031	123789-HxCDF	72918-21-9	0.122 J	0.0617	4.99	1
11031	234678-HxCDF	60851-34-5	0.202 JB	0.0497	4.99	1
11031	1234678-HpCDF	67562-39-4	0.542 JB	0.0547	4.99	1
11031	1234789-HpCDF	55673-89-7	0.0976 U	0.0976	4.99	1
11031	OCDF	39001-02-0	1.09 JB	0.177	9.98	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	49	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	49	26 - 138
13C12-OCDF	37	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419516
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD029 SDG#: DX142-18

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



Analysis Report

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Page 4 of 4

Sample Description: SL-029-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419516
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD029 SDG#: DX142-18

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 16:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419517
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD030 SDG#: DX142-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1

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

Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419517
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD030 SDG#: DX142-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0439 U	0.0439	1.01	1
11031	12378-PeCDD	40321-76-4	0.0762 JQ	0.0383	5.05	1
11031	123478-HxCDD	39227-28-6	0.0932 JQ	0.0536	5.05	1
11031	123678-HxCDD	57653-85-7	0.133 JBQ	0.0507	5.05	1
11031	123789-HxCDD	19408-74-3	0.145 JBQ	0.0478	5.05	1
11031	1234678-HpCDD	35822-46-9	3.49 JB	0.0870	5.05	1
11031	OCDD	3268-87-9	28.5 B	0.132	10.1	1
11031	2378-TCDF	51207-31-9	0.0640 JQ	0.0555	1.01	1
11031	12378-PeCDF	57117-41-6	0.0580 JBQ	0.0298	5.05	1
11031	23478-PeCDF	57117-31-4	0.0297 U	0.0297	5.05	1
11031	123478-HxCDF	70648-26-9	0.112 JQ	0.0362	5.05	1
11031	123678-HxCDF	57117-44-9	0.111 JQ	0.0319	5.05	1
11031	123789-HxCDF	72918-21-9	0.0578 J	0.0415	5.05	1
11031	234678-HxCDF	60851-34-5	0.109 JBQ	0.0332	5.05	1
11031	1234678-HpCDF	67562-39-4	0.797 JB	0.0429	5.05	1
11031	1234789-HpCDF	55673-89-7	0.0979 JBQ	0.0742	5.05	1
11031	OCDF	39001-02-0	1.79 JB	0.146	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	89	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	86	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419517
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

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SD030 SDG#: DX142-19

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



Analysis Report

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Sample Description: SL-030-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-030-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419517
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:25

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD030 SDG#: DX142-19

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 17:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419518
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

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SD031 SDG#: DX142-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	3.4	0.50	0.50	1

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

Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419518
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/18/2011 12:23

Suite 210

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SD031 SDG#: DX142-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0792 JQ	0.0384	1.04	1
11031	12378-PeCDD	40321-76-4	0.183 JQ	0.0396	5.18	1
11031	123478-HxCDD	39227-28-6	0.173 J	0.0464	5.18	1
11031	123678-HxCDD	57653-85-7	0.504 JBQ	0.0472	5.18	1
11031	123789-HxCDD	19408-74-3	0.479 JBQ	0.0524	5.18	1
11031	1234678-HpCDD	35822-46-9	8.56 B	0.0522	5.18	1
11031	OCDD	3268-87-9	77.9 B	0.0891	10.4	1
11031	2378-TCDF	51207-31-9	0.674 J	0.0808	1.04	1
11031	12378-PeCDF	57117-41-6	0.294 JB	0.0436	5.18	1
11031	23478-PeCDF	57117-31-4	0.239 JBQ	0.0448	5.18	1
11031	123478-HxCDF	70648-26-9	0.162 JQ	0.0391	5.18	1
11031	123678-HxCDF	57117-44-9	0.170 J	0.0319	5.18	1
11031	123789-HxCDF	72918-21-9	0.0449 U	0.0449	5.18	1
11031	234678-HxCDF	60851-34-5	0.176 JBQ	0.0344	5.18	1
11031	1234678-HpCDF	67562-39-4	1.42 JB	0.0237	5.18	1
11031	1234789-HpCDF	55673-89-7	0.145 JB	0.0440	5.18	1
11031	OCDF	39001-02-0	3.07 JB	0.0836	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	60	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419518
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

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SD031 SDG#: DX142-20*

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



Analysis Report

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Sample Description: SL-031-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419518
LLI Group # 1268380
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/18/2011 12:23

Suite 210

Chantilly VA 20151

SD031 SDG#: DX142-20*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11278001	10/08/2011 18:04	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11278001	10/05/2011 12:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/18/11 at 12:23 PM

Group Number: 1268380

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11273162401B	Sample number(s): 6419507-6419518				100		80-120		
Moisture Content by 160.3									

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11278001	Sample number(s): 6419507-6419512, 6419514-6419518								
2378-TCDD	0.0414 U	0.0414	1.00	ng/kg	103		67-158		
12378-PeCDD	0.0292 U	0.0292	5.00	ng/kg	101		70-142		
123478-HxCDD	0.0220 U	0.0220	5.00	ng/kg	99		70-164		
123678-HxCDD	0.0339 J	0.0218	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0358 J	0.0215	5.00	ng/kg	98		64-162		
1234678-HpCDD	0.161 J	0.0245	5.00	ng/kg	97		70-140		
OCDD	0.328 J	0.0286	10.0	ng/kg	96		78-144		
2378-TCDF	0.0321 U	0.0321	1.00	ng/kg	102		75-158		
2378-TCDF-Conf	0.0143 J	0.0122	1.00	ng/kg	102		75-158		
12378-PeCDF	0.0235 J	0.0149	5.00	ng/kg	97		80-134		
23478-PeCDF	0.0573 J	0.0154	5.00	ng/kg	96		68-160		
123478-HxCDF	0.0336 U	0.0336	5.00	ng/kg	94		72-134		
123678-HxCDF	0.0260 U	0.0260	5.00	ng/kg	94		84-130		
123789-HxCDF	0.0215 U	0.0215	5.00	ng/kg	94		78-130		
234678-HxCDF	0.0337 J	0.0154	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.0842 J	0.0124	5.00	ng/kg	92		82-122		
1234789-HpCDF	0.0285 J	0.0178	5.00	ng/kg	95		78-138		
OCDF	0.135 J	0.0560	10.0	ng/kg	95		63-170		

Batch number: 11285001	Sample number(s): 6419513								
2378-TCDD	0.0501 J	0.0485	1.00	ng/kg	95		67-158		
12378-PeCDD	0.0433 J	0.0366	5.00	ng/kg	95		70-142		
123478-HxCDD	0.0242 U	0.0242	5.00	ng/kg	94		70-164		
123678-HxCDD	0.0270 J	0.0240	5.00	ng/kg	90		76-134		
123789-HxCDD	0.0287 J	0.0255	5.00	ng/kg	92		64-162		
1234678-HpCDD	0.227 J	0.0371	5.00	ng/kg	90		70-140		
OCDD	0.456 J	0.0253	10.0	ng/kg	90		78-144		
2378-TCDF	0.0371 U	0.0371	1.00	ng/kg	100		75-158		
12378-PeCDF	0.0611 J	0.0199	5.00	ng/kg	92		80-134		
23478-PeCDF	0.0852 J	0.0206	5.00	ng/kg	89		68-160		
123478-HxCDF	0.0401 J	0.0208	5.00	ng/kg	89		72-134		
123678-HxCDF	0.0225 J	0.0172	5.00	ng/kg	90		84-130		
123789-HxCDF	0.0229 U	0.0229	5.00	ng/kg	90		78-130		
234678-HxCDF	0.0261 J	0.0185	5.00	ng/kg	88		70-156		
1234678-HpCDF	0.0966 J	0.0117	5.00	ng/kg	88		82-122		
1234789-HpCDF	0.0371 J	0.0200	5.00	ng/kg	92		78-138		
OCDF	0.217 J	0.0584	10.0	ng/kg	92		63-170		

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/18/11 at 12:23 PM

Group Number: 1268380

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 MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11273162401B Moisture Content by 160.3	Sample number(s): 6419507-6419518				BKG: P419491		0.67	0.62	7 (1)
									20
Batch number: 11278001	Sample number(s): 6419507-6419512, 6419514-6419518				UNSPK: 6419510				
2378-TCDD	99	95	67-158	4	25				
12378-PeCDD	99	97	70-142	2	25				
123478-HxCDD	99	95	70-164	4	25				
123678-HxCDD	96	93	76-134	3	25				
123789-HxCDD	102	99	64-162	2	25				
1234678-HpCDD	94	91	70-140	3	25				
OCDD	99	93	78-144	4	25				
2378-TCDF	95	91	75-158	4	25				
2378-TCDF-Conf	95	91	75-158	4	25				
12378-PeCDF	96	94	80-134	2	25				
23478-PeCDF	94	91	68-160	3	25				
123478-HxCDF	96	89	72-134	8	25				
123678-HxCDF	95	88	84-130	7	25				
123789-HxCDF	94	90	78-130	4	25				
234678-HxCDF	95	91	70-156	4	25				
1234678-HpCDF	89	88	82-122	1	25				
1234789-HpCDF	94	92	78-138	2	25				
OCDF	95	89	63-170	6	25				

Surrogate Quality Control

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

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

Batch number: 11278001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6419507	71	59	57	73	61	55
6419508	73	64	64	77	67	68
6419509	71	65	64	71	67	71
6419510	73	64	64	69	64	69
6419511	71	64	35	41	64	67
6419512	73	62	41	51	63	66
6419514	75	64	68	70	74	74
6419515	82	65	29	46	75	73
6419516	71	63	61	71	66	60
6419517	89	76	75	83	79	74
6419518	76	60	60	71	65	60
Blank	72	64	31	40	69	60
MS	71	64	35	41	64	67
MSD	73	62	41	51	63	66
OPR	66	58	49	63	61	53

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/18/11 at 12:23 PM

Group Number: 1268380

Surrogate Quality Control

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6419507	96	46	44	70	76	79
6419508	95	60	62	72	81	88
6419509	85	63	61	71	76	82
6419510	79	59	58	70	73	78
6419511	60	56	54	70	74	79
6419512	70	56	55	70	77	88
6419514	67	67	52	66	79	80
6419515	39	55	34	66	78	76
6419516	71	49	37	69	75	77
6419517	82	58	43	81	87	90
6419518	80	52	43	69	78	79
Blank	65	55	48	77	85	87
MS	60	56	54	70	74	79
MSD	70	56	55	70	77	88
OPR	88	53	46	71	79	81
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-2378-TCDF-Conf
6419507	80	79	79	63	73	
6419508	98	87	91	67	73	
6419509	80	80	81	67	70	
6419510	75	80	77	67	70	
6419511	86	80	82	67	71	
6419512	95	84	80	67	68	
6419514	79	72	57	75	64	
6419515	76	59	37		67	74
6419516	68	65	49	67	69	
6419517	92	76	56	86	83	
6419518	68	73	62	72	70	
Blank	88	89	86	61	74	55
MS	86	80	82	67	71	67
MSD	95	84	80	67	68	67
OPR	80	84	82	57	69	57
Limits:	28-130	23-140	17-157	24-169	24-185	24-169
Analysis Name: 10a Dioxin/Furan by EPA 1613B						
Batch number: 11285001						
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6419513	68	64	51	55	64	68
Blank	73	68	59	72	66	66
OPR	63	58	55	65	60	60
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6419513	62	70	65	67	70	72
Blank	93	64	68	79	81	85

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/18/11 at 12:23 PM

Group Number: 1268380

Surrogate Quality Control						
OPR	89	58	61	69	73	78
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-2378-TCDF-Conf
6419513	72	75	72	66	63	
Blank	83	92	96	64	76	
OPR	76	83	88	54	65	54
Limits:	28-130	23-140	17-157	24-169	24-185	22-152

*- Outside of specification

** - This limit was used in 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.

13013/1268380/6419507-18

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 601/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	VOCs EPA 8260B \$	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-SS Sleeve			X	X									
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-SS Sleeve			X	X									
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-SS Sleeve			X	X									
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-001-SA5D-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-SS Sleeves			X	X								MS/MSD sample	
SL-001-SA5D-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-16 oz. jars	X	X			X	X	X	X		X	X	MS/MSD sample	
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	2-Encores											X		
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-SS Sleeve			X	X									
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-027-SA5DS-SS-0.0-0.5	9/26/11	0925	SOIL	NONE	1-SS Sleeve			X	X									
SL-027-SA5DS-SS-0.0-0.5	9/26/11	0925	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-SS Sleeve			X	X									
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-SS Sleeve			X	X									
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-SS Sleeve			X	X									
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1150	SOIL	NONE	1-SS Sleeve			X	X									
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1150	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-SS Sleeve			X	X									
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
DUP01-SA5DS-QC-092611	9/26/11	1510	SOIL	NONE	1-SS Sleeve			X	X									
DUP01-SA5DS-QC-092611	9/26/11	1510	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)														
		09/26/2011 / 1630																
Received by: (Signature)		Date/Time		Airbill No.(s)														
				8767 9858 3428; 8767 9858 3439 8767 9858 3440														
Laboratory: Lancaster Laboratories, Inc.																		

SL-001-SA3-SS-0.0-0.5
MS/MSD sample
9/26/2011

Revised
COC

Nicole Maljovec

From: Bloisa, Peggy [BloisaMJ@cdm.com]
Sent: Tuesday, September 27, 2011 7:33 PM
To: Nicole Maljovec; SA Env Entry
Cc: Burgesser, Todd; Zakowski, Cherie; Laura Rainey; Hartman, Pamela
Subject: SSFL COCs for 9/26 and 9/27
Attachments: COC_09_27_11.xlsx; COC_09_26_11 revised.xlsx

Attached is today's COC and a revised COC for yesterday 9/26. The sample shown as SL-021-002-SA5DS-SS-0.0-0.5 collected at 1505 as shown on yesterdays COC should have been labeled as SL-001. The "real" SL-021 was sampled today.

Peggy

Peggy Bloisa, P.G.

CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |

| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

13013 1268380 6419507-18

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020/BA7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	VOCs/EPA 8260B \$	
Samplers Signatures: <i>Vital Ctr</i>																			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-SS Sleeve				X	X									
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-SS Sleeve			X	X										
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-SS Sleeve			X	X										
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-021-SA5D-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-SS Sleeves			X	X								MS/MSD sample		
SL-021-SA5D-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-16 oz Jars	X	X				X	X	X	X		X	X		
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	2-Encores												X		
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-SS Sleeve			X	X										
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-027-SA5DS-SS-0.0-0.5	9/26/11	0925	SOIL	NONE	1-SS Sleeve			X	X										
SL-027-SA5DS-SS-0.0-0.5	9/26/11	0925	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-SS Sleeve			X	X										
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-SS Sleeve			X	X										
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-SS Sleeve			X	X										
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1150	SOIL	NONE	1-SS Sleeve			X	X										
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1150	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-SS Sleeve			X	X										
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
DUP01-SA5DS-QC-092611	9/26/11	1510	SOIL	NONE	1-SS Sleeve			X	X										
DUP01-SA5DS-QC-092611	9/26/11	1510	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:					
<i>Vital Ctr</i>		09/26/2011 / 1630		<i>Harry H. L. 9/27/11 0900</i>										Lancaster Laboratories, Inc.					
Received by: (Signature)		Date/Time		Airbill No(s)															
				8767 9858 3428; 8767 9858 3439 8767 9858 3440															

Explanation of Symbols and Abbreviations

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

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/27/2011

Group Number: 1268383

SDG: DX143

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-032-SA5DS-SS-0.0-0.5 Soil
DUP01-SA5DS-QC-092611 Soil
SL-102-SA7-SB-4.0-5.0 Soil
SL-102-SA7-SB-4.0-5.0 MS Soil
SL-102-SA7-SB-4.0-5.0 MSD Soil
SL-102-SA7-SB-9.0-10.0 Soil
SL-109-SA7-SB-4.0-5.0 Soil
SL-109-SA7-SB-9.0-10.0 SoilLancaster Labs (LLI) #6419539
6419540
6419541
6419542
6419543
6419544
6419545
6419546

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

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

Attn: Todd Burgess

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

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

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

Page 1 of 4

Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419539
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

SD032 SDG#: DX143-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1

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

Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419539
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

SD032 SDG#: DX143-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0372 U	0.0372	1.02	1
11031	12378-PeCDD	40321-76-4	0.0740 JQ	0.0316	5.09	1
11031	123478-HxCDD	39227-28-6	0.0950 JQ	0.0364	5.09	1
11031	123678-HxCDD	57653-85-7	0.125 JBQ	0.0369	5.09	1
11031	123789-HxCDD	19408-74-3	0.122 JBQ	0.0356	5.09	1
11031	1234678-HpCDD	35822-46-9	2.95 JB	0.0390	5.09	1
11031	OCDD	3268-87-9	26.9 B	0.0376	10.2	1
11031	2378-TCDF	51207-31-9	0.197 J	0.0561	1.02	1
11031	12378-PeCDF	57117-41-6	0.325 JB	0.0302	5.09	1
11031	23478-PeCDF	57117-31-4	0.0971 JB	0.0313	5.09	1
11031	123478-HxCDF	70648-26-9	0.326 JB	0.0277	5.09	1
11031	123678-HxCDF	57117-44-9	0.0945 JBQ	0.0247	5.09	1
11031	123789-HxCDF	72918-21-9	0.0596 JBQ	0.0283	5.09	1
11031	234678-HxCDF	60851-34-5	0.117 JB	0.0256	5.09	1
11031	1234678-HpCDF	67562-39-4	0.611 JB	0.0162	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0771 JBQ	0.0276	5.09	1
11031	OCDF	39001-02-0	1.27 JB	0.0488	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419539
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

SD032 SDG#: DX143-01

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

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



Analysis Report

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Page 4 of 4

Sample Description: SL-032-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-032-SA5DS-SS-0.0-0.5

LLI Sample # SW 6419539
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

SD032 SDG#: DX143-01

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/08/2011 23:57	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419540
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

DDP01 SDG#: DX143-02FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	0.73	0.50	0.50	1

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

Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419540
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/14/2011 14:06

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DDP01 SDG#: DX143-02FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0349 U	0.0349	0.989	1
11031	12378-PeCDD	40321-76-4	0.159 J	0.0383	4.94	1
11031	123478-HxCDD	39227-28-6	0.295 J	0.0457	4.94	1
11031	123678-HxCDD	57653-85-7	0.765 JB	0.0426	4.94	1
11031	123789-HxCDD	19408-74-3	0.668 JB	0.0454	4.94	1
11031	1234678-HpCDD	35822-46-9	15.1 B	0.0567	4.94	1
11031	OCDD	3268-87-9	230 B	0.0865	9.89	1
11031	2378-TCDF	51207-31-9	0.602 J	0.0808	0.989	1
11031	12378-PeCDF	57117-41-6	0.644 JB	0.0549	4.94	1
11031	23478-PeCDF	57117-31-4	1.15 JB	0.0558	4.94	1
11031	123478-HxCDF	70648-26-9	0.466 JB	0.0395	4.94	1
11031	123678-HxCDF	57117-44-9	0.347 JB	0.0360	4.94	1
11031	123789-HxCDF	72918-21-9	0.117 JB	0.0456	4.94	1
11031	234678-HxCDF	60851-34-5	0.328 JB	0.0388	4.94	1
11031	1234678-HpCDF	67562-39-4	2.43 JB	0.0255	4.94	1
11031	1234789-HpCDF	55673-89-7	0.233 JB	0.0426	4.94	1
11031	OCDF	39001-02-0	5.39 JB	0.0562	9.89	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	63	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	60	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419540
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

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Submitted: 09/27/2011 09:00

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DDP01 SDG#: DX143-02FD

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



Analysis Report

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Sample Description: DUP01-SA5DS-QC-092611 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA5DS-QC-092611

LLI Sample # SW 6419540
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 15:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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DDP01 SDG#: DX143-02FD

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 00:53	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11273162401B	09/30/2011 23:10	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-102-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419541
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

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Submitted: 09/27/2011 09:00

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Reported: 10/14/2011 14:06

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D1024 SDG#: DX143-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.6	0.50	0.50	1

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

Sample Description: SL-102-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419541
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

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Submitted: 09/27/2011 09:00

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Reported: 10/14/2011 14:06

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D1024 SDG#: DX143-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0311 U	0.0311	1.03	1
11031	12378-PeCDD	40321-76-4	0.0236 U	0.0236	5.14	1
11031	123478-HxCDD	39227-28-6	0.0266 U	0.0266	5.14	1
11031	123678-HxCDD	57653-85-7	0.0891 JBQ	0.0260	5.14	1
11031	123789-HxCDD	19408-74-3	0.142 JBQ	0.0260	5.14	1
11031	1234678-HpCDD	35822-46-9	0.550 JB	0.0323	5.14	1
11031	OCDD	3268-87-9	5.11 JB	0.0252	10.3	1
11031	2378-TCDF	51207-31-9	0.0238 U	0.0238	1.03	1
11031	12378-PeCDF	57117-41-6	0.0142 U	0.0142	5.14	1
11031	23478-PeCDF	57117-31-4	0.0395 JB	0.0149	5.14	1
11031	123478-HxCDF	70648-26-9	0.0345 JBQ	0.0200	5.14	1
11031	123678-HxCDF	57117-44-9	0.0504 JBQ	0.0172	5.14	1
11031	123789-HxCDF	72918-21-9	0.0948 JBQ	0.0180	5.14	1
11031	234678-HxCDF	60851-34-5	0.0273 JB	0.0159	5.14	1
11031	1234678-HpCDF	67562-39-4	0.172 JBQ	0.0155	5.14	1
11031	1234789-HpCDF	55673-89-7	0.0585 JBQ	0.0266	5.14	1
11031	OCDF	39001-02-0	0.267 JB	0.0485	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	51	26 - 152
13C12-123678-HxCDF	57	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	51	26 - 138
13C12-OCDF	44	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-102-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419541
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1024 SDG#: DX143-03BKG

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

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



Analysis Report

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Sample Description: SL-102-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419541
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1024 SDG#: DX143-03BKG

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 01:50	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	11279162401A	10/06/2011 22:58	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-102-SA7-SB-4.0-5.0 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419542
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1024 SDG#: DX143-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.6	0.50	0.50	1

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

Sample Description: SL-102-SA7-SB-4.0-5.0 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419542
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

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D1024 SDG#: DX143-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.1	0.0738	1.05	1
11031	12378-PeCDD	40321-76-4	106	0.0642	5.24	1
11031	123478-HxCDD	39227-28-6	105	0.0618	5.24	1
11031	123678-HxCDD	57653-85-7	104	0.0613	5.24	1
11031	123789-HxCDD	19408-74-3	101	0.0561	5.24	1
11031	1234678-HpCDD	35822-46-9	102	0.0780	5.24	1
11031	OCDD	3268-87-9	205	0.0878	10.5	1
11031	2378-TCDF	51207-31-9	20.4	0.0704	1.05	1
11031	12378-PeCDF	57117-41-6	104	0.0397	5.24	1
11031	23478-PeCDF	57117-31-4	100	0.0395	5.24	1
11031	123478-HxCDF	70648-26-9	101	0.0934	5.24	1
11031	123678-HxCDF	57117-44-9	101	0.0780	5.24	1
11031	123789-HxCDF	72918-21-9	101	0.103	5.24	1
11031	234678-HxCDF	60851-34-5	103	0.0871	5.24	1
11031	1234678-HpCDF	67562-39-4	96.8	0.0563	5.24	1
11031	1234789-HpCDF	55673-89-7	104	0.108	5.24	1
11031	OCDF	39001-02-0	205	0.154	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-102-SA7-SB-4.0-5.0 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419542
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

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D1024 SDG#: DX143-03MS

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



Analysis Report

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Sample Description: SL-102-SA7-SB-4.0-5.0 MS Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419542
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1024 SDG#: DX143-03MS

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 02:46	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	11279162401A	10/06/2011 22:58	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-102-SA7-SB-4.0-5.0 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419543
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1024 SDG#: DX143-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.6	0.50	0.50	1

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

Sample Description: SL-102-SA7-SB-4.0-5.0 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419543
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1024 SDG#: DX143-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.8	0.0610	1.03	1
11031	12378-PeCDD	40321-76-4	103	0.0627	5.14	1
11031	123478-HxCDD	39227-28-6	102	0.0555	5.14	1
11031	123678-HxCDD	57653-85-7	100 B	0.0522	5.14	1
11031	123789-HxCDD	19408-74-3	100 B	0.0484	5.14	1
11031	1234678-HpCDD	35822-46-9	102 B	0.0701	5.14	1
11031	OCDD	3268-87-9	200 B	0.0884	10.3	1
11031	2378-TCDF	51207-31-9	19.6	0.0547	1.03	1
11031	12378-PeCDF	57117-41-6	101 B	0.0388	5.14	1
11031	23478-PeCDF	57117-31-4	98.6 B	0.0372	5.14	1
11031	123478-HxCDF	70648-26-9	98.7 B	0.0706	5.14	1
11031	123678-HxCDF	57117-44-9	98.3 B	0.0642	5.14	1
11031	123789-HxCDF	72918-21-9	98.3 B	0.0799	5.14	1
11031	234678-HxCDF	60851-34-5	98.5 B	0.0671	5.14	1
11031	1234678-HpCDF	67562-39-4	96.0 B	0.0549	5.14	1
11031	1234789-HpCDF	55673-89-7	98.4 B	0.0930	5.14	1
11031	OCDF	39001-02-0	195 B	0.118	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	50	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Sample Description: SL-102-SA7-SB-4.0-5.0 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419543
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1024 SDG#: DX143-03MSD

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

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



Analysis Report

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Page 4 of 4

Sample Description: SL-102-SA7-SB-4.0-5.0 MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-4.0-5.0

LLI Sample # SW 6419543
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:10

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1024 SDG#: DX143-03MSD

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 03:43	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	2	11279162401A	10/06/2011 22:58	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-102-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-9.0-10.0

LLI Sample # SW 6419544
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:30

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

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Chantilly VA 20151

D1029 SDG#: DX143-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.8	0.50	0.50	1

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

Sample Description: SL-102-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-9.0-10.0

LLI Sample # SW 6419544
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:30

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

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D1029 SDG#: DX143-04

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	0.0454 U	0.0454	1.12	1
11031	12378-PeCDD	40321-76-4	0.0561 JQ	0.0378	5.62	1
11031	123478-HxCDD	39227-28-6	0.0399 U	0.0399	5.62	1
11031	123678-HxCDD	57653-85-7	0.230 JBQ	0.0401	5.62	1
11031	123789-HxCDD	19408-74-3	0.310 JBQ	0.0393	5.62	1
11031	1234678-HpCDD	35822-46-9	1.88 JB	0.0510	5.62	1
11031	OCDD	3268-87-9	25.2 B	0.0465	11.2	1
11031	2378-TCDF	51207-31-9	0.0642 JQ	0.0444	1.12	1
11031	12378-PeCDF	57117-41-6	0.103 JBQ	0.0202	5.62	1
11031	23478-PeCDF	57117-31-4	0.0644 JBQ	0.0216	5.62	1
11031	123478-HxCDF	70648-26-9	0.0805 JBQ	0.0362	5.62	1
11031	123678-HxCDF	57117-44-9	0.0628 JBQ	0.0296	5.62	1
11031	123789-HxCDF	72918-21-9	0.529 JB	0.0346	5.62	1
11031	234678-HxCDF	60851-34-5	0.0869 JB	0.0288	5.62	1
11031	1234678-HpCDF	67562-39-4	0.287 JB	0.0194	5.62	1
11031	1234789-HpCDF	55673-89-7	0.0559 JBQ	0.0369	5.62	1
11031	OCDF	39001-02-0	0.805 JB	0.0869	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	61	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	42	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-102-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-9.0-10.0

LLI Sample # SW 6419544
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:30

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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D1029 SDG#: DX143-04

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



Analysis Report

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Page 4 of 4

Sample Description: SL-102-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA7-SB-9.0-10.0

LLI Sample # SW 6419544
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 09:30

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/14/2011 14:06

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D1029 SDG#: DX143-04

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 04:39	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403A	10/05/2011 20:16	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-109-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA7-SB-4.0-5.0

LLI Sample # SW 6419545
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:13

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/14/2011 14:06

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D1094 SDG#: DX143-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.3	0.50	0.50	1

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

Sample Description: SL-109-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA7-SB-4.0-5.0

LLI Sample # SW 6419545
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:13

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

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D1094 SDG#: DX143-05

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	0.0344 U	0.0344	1.03	1
11031	12378-PeCDD	40321-76-4	0.0304 U	0.0304	5.17	1
11031	123478-HxCDD	39227-28-6	0.0329 JQ	0.0287	5.17	1
11031	123678-HxCDD	57653-85-7	0.0871 JB	0.0274	5.17	1
11031	123789-HxCDD	19408-74-3	0.116 JBQ	0.0256	5.17	1
11031	1234678-HpCDD	35822-46-9	0.473 JBQ	0.0343	5.17	1
11031	OCDD	3268-87-9	5.61 JB	0.0343	10.3	1
11031	2378-TCDF	51207-31-9	0.0325 U	0.0325	1.03	1
11031	12378-PeCDF	57117-41-6	0.0286 JBQ	0.0158	5.17	1
11031	23478-PeCDF	57117-31-4	0.0895 JBQ	0.0160	5.17	1
11031	123478-HxCDF	70648-26-9	0.0437 JBQ	0.0206	5.17	1
11031	123678-HxCDF	57117-44-9	0.0340 JBQ	0.0171	5.17	1
11031	123789-HxCDF	72918-21-9	0.0231 JBQ	0.0217	5.17	1
11031	234678-HxCDF	60851-34-5	0.0459 JB	0.0188	5.17	1
11031	1234678-HpCDF	67562-39-4	0.198 JB	0.0125	5.17	1
11031	1234789-HpCDF	55673-89-7	0.0247 U	0.0247	5.17	1
11031	OCDF	39001-02-0	0.247 JB	0.0516	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	67	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-109-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA7-SB-4.0-5.0

LLI Sample # SW 6419545
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:13

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/14/2011 14:06

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D1094 SDG#: DX143-05

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



Analysis Report

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Sample Description: SL-109-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA7-SB-4.0-5.0

LLI Sample # SW 6419545
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:13

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

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Reported: 10/14/2011 14:06

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D1094 SDG#: DX143-05

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 05:36	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403A	10/05/2011 20:16	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-109-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA7-SB-9.0-10.0

LLI Sample # SW 6419546
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:20

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

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D1099 SDG#: DX143-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.8	0.50	0.50	1

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

Sample Description: SL-109-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA7-SB-9.0-10.0

LLI Sample # SW 6419546
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:20

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

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D1099 SDG#: DX143-06

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	0.0993 JQ	0.0420	1.08	1
11031	12378-PeCDD	40321-76-4	0.265 JQ	0.0402	5.41	1
11031	123478-HxCDD	39227-28-6	0.0923 J	0.0369	5.41	1
11031	123678-HxCDD	57653-85-7	0.173 JBQ	0.0371	5.41	1
11031	123789-HxCDD	19408-74-3	0.393 JB	0.0349	5.41	1
11031	1234678-HpCDD	35822-46-9	1.13 JB	0.0451	5.41	1
11031	OCDD	3268-87-9	10.1 JB	0.0497	10.8	1
11031	2378-TCDF	51207-31-9	0.0681 JQ	0.0383	1.08	1
11031	12378-PeCDF	57117-41-6	0.279 JB	0.0205	5.41	1
11031	23478-PeCDF	57117-31-4	0.231 JB	0.0207	5.41	1
11031	123478-HxCDF	70648-26-9	0.177 JBQ	0.0384	5.41	1
11031	123678-HxCDF	57117-44-9	0.134 JBQ	0.0292	5.41	1
11031	123789-HxCDF	72918-21-9	0.339 JB	0.0318	5.41	1
11031	234678-HxCDF	60851-34-5	0.135 JBQ	0.0258	5.41	1
11031	1234678-HpCDF	67562-39-4	0.195 JBQ	0.0184	5.41	1
11031	1234789-HpCDF	55673-89-7	0.0530 JBQ	0.0325	5.41	1
11031	OCDF	39001-02-0	0.305 JB	0.0766	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	90	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Page 3 of 4

Sample Description: SL-109-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA7-SB-9.0-10.0

LLI Sample # SW 6419546
LLI Group # 1268383
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/26/2011 12:20

CDM Federal Programs Corp.

Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1099 SDG#: DX143-06

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

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



Analysis Report

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

Page 4 of 4

Sample Description: SL-109-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
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Submitted: 09/27/2011 09:00

14420 Albemarle Point Place

Reported: 10/14/2011 14:06

Suite 210

Chantilly VA 20151

D1099 SDG#: DX143-06

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 06:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403A	10/05/2011 20:16	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/14/11 at 02:06 PM

Group Number: 1268383

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11273162401B Moisture Content by 160.3	Sample number(s): 6419539-6419540				100		80-120		
Batch number: 11278162403A Moisture Content by 160.3	Sample number(s): 6419544-6419546				100		80-120		
Batch number: 11279162401A Moisture Content by 160.3	Sample number(s): 6419541-6419543				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11279002	Sample number(s): 6419539-6419546								
2378-TCDD	0.0376 U	0.0376	1.00	ng/kg	102		67-158		
12378-PeCDD	0.0335 U	0.0335	5.00	ng/kg	101		70-142		
123478-HxCDD	0.0246 U	0.0246	5.00	ng/kg	101		70-164		
123678-HxCDD	0.0361 J	0.0260	5.00	ng/kg	98		76-134		
123789-HxCDD	0.0277 J	0.0253	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.197 J	0.0315	5.00	ng/kg	97		70-140		
OCDD	0.280 J	0.0357	10.0	ng/kg	99		78-144		
2378-TCDF	0.0307 U	0.0307	1.00	ng/kg	105		75-158		
12378-PeCDF	0.0199 J	0.0170	5.00	ng/kg	100		80-134		
23478-PeCDF	0.0351 J	0.0174	5.00	ng/kg	97		68-160		
123478-HxCDF	0.0470 J	0.0216	5.00	ng/kg	99		72-134		
123678-HxCDF	0.0229 J	0.0182	5.00	ng/kg	97		84-130		
123789-HxCDF	0.0335 J	0.0235	5.00	ng/kg	97		78-130		
234678-HxCDF	0.0501 J	0.0188	5.00	ng/kg	98		70-156		
1234678-HpCDF	0.123 J	0.0114	5.00	ng/kg	95		82-122		
1234789-HpCDF	0.0342 J	0.0217	5.00	ng/kg	97		78-138		
OCDF	0.108 J	0.0712	10.0	ng/kg	98		63-170		

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11273162401B Moisture Content by 160.3	Sample number(s): 6419539-6419540					BKG: P419491 0.67	0.62	7 (1)	20
Batch number: 11278162403A	Sample number(s): 6419544-6419546					BKG: P419519			

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/14/11 at 02:06 PM

Group Number: 1268383

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>
Moisture Content by 160.3						5.9	5.0	16	20
Batch number: 11279162401A	Sample number(s): 6419541-6419543				BKG: P419519				
Moisture Content by 160.3						4.6	4.9	5	20
Batch number: 11279002	Sample number(s): 6419539-6419546				UNSPK: 6419541				
2378-TCDD	106	101	67-158	6	25				
12378-PeCDD	101	100	70-142	3	25				
123478-HxCDD	101	99	70-164	3	25				
123678-HxCDD	99	98	76-134	3	25				
123789-HxCDD	97	97	64-162	1	25				
1234678-HpCDD	97	99	70-140	0	25				
OCDD	95	95	78-144	3	25				
2378-TCDF	97	96	75-158	4	25				
12378-PeCDF	99	98	80-134	3	25				
23478-PeCDF	95	96	68-160	1	25				
123478-HxCDF	96	96	72-134	2	25				
123678-HxCDF	96	96	84-130	2	25				
123789-HxCDF	97	96	78-130	3	25				
234678-HxCDF	98	96	70-156	5	25				
1234678-HpCDF	92	93	82-122	1	25				
1234789-HpCDF	99	96	78-138	5	25				
OCDF	97	95	63-170	5	25				

Surrogate Quality Control

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

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11279002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6419539	76	64	65	72	68	72
6419540	71	59	62	68	60	62
6419541	68	58	51	57	64	65
6419542	66	61	63	73	66	63
6419543	64	61	65	72	67	67
6419544	69	59	52	62	61	62
6419545	66	59	61	73	65	67
6419546	78	66	52	66	72	69
Blank	74	64	65	76	71	68
MS	66	61	63	73	66	63
MSD	64	61	65	72	67	67
OPR	62	57	58	69	64	59
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/14/11 at 02:06 PM

Group Number: 1268383

Surrogate Quality Control

6419539	82	59	52	68	77	79
6419540	73	53	47	64	69	73
6419541	71	51	44	64	72	78
6419542	87	54	48	66	76	79
6419543	81	57	50	65	77	81
6419544	76	50	42	66	73	77
6419545	89	55	47	66	77	82
6419546	80	57	48	74	86	88
Blank	89	57	47	73	85	87
MS	87	54	48	66	76	79
MSD	81	57	50	65	77	81
OPR	87	54	47	67	79	79
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6419539	77	76	67	71	73	
6419540	63	71	63	72	65	
6419541	77	74	64	64	66	
6419542	82	77	69	63	68	
6419543	83	75	67	61	65	
6419544	78	70	63	61	66	
6419545	85	78	68	60	67	
6419546	90	82	73	71	76	
Blank	85	83	70	65	72	
MS	82	77	69	63	68	
MSD	83	75	67	61	65	
OPR	78	80	71	55	63	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

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

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

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

13013 1268383 6419539-46

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 140.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report TetraIn under EPA Method 8270C.							*Metals EPA 8010/8200/8471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8062	*Dioxin/Furan EPA 1613B	*Pesticides EPA 814.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Pesticides Confirmation by EPA 8065 (10%)	*Pesticides EPA 8061A (surface soil only)	*Herbicides EPA 8161 (surface soil only)	VOCs EPA 8260B \$	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-SS Sleeve				X	X									
SL-001-SA3-SS-0.0-0.5	9/26/11	0750	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-SS Sleeve			X	X										
SL-002-SA3-SS-0.0-0.5	9/26/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-SS Sleeve			X	X										
SL-002-SA5DS-SS-0.0-0.5	9/26/11	1435	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-021-SA5DS-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-SS Sleeves													MS/MSD sample	
SL-021-SA5DS-SS-0.0-0.5MS	9/26/11	1505	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X		MS/MSD sample	
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	2-Encores												X		
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-SS Sleeve			X	X										
SL-026-SA5DS-SS-0.0-0.5	9/26/11	1035	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-027-SA5DS-SS-0.0-0.5	9/26/11	1025	SOIL	NONE	1-SS Sleeve			X	X										
SL-027-SA5DS-SS-0.0-0.5	9/26/11	1025	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-SS Sleeve			X	X										
SL-028-SA5DS-SS-0.0-0.5	9/26/11	1050	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-SS Sleeve			X	X										
SL-029-SA5DS-SS-0.0-0.5	9/26/11	1110	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-SS Sleeve			X	X										
SL-030-SA5DS-SS-0.0-0.5	9/26/11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1160	SOIL	NONE	1-SS Sleeve			X	X										
SL-031-SA5DS-SS-0.0-0.5	9/26/11	1160	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-SS Sleeve			X	X										
SL-032-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
DUP01-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-SS Sleeve			X	X										
DUP01-SA5DS-SS-0.0-0.5	9/26/11	1210	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)										Laboratory:							
<i>Vidal C. Jr.</i>	09/26/2011 / 1630	<i>Henry H. LI</i> 9/27/11 0900										Lancaster Laboratories, Inc.							
Received By: (Signature)	Date/Time	Airmail No(s)																	
		8767 9858 3428; 8767 9858 3439 8767 9858 3440																	

13013 1268383 6419539-46

CHAIN OF CUSTODY RECORD

SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS								SS ONLY		SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes			
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Metastars by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected. For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report TetraIn under EPA Method 8270C.						*Metals EPA 8210/EC20/SL 471A	**Fluoride EPA 300.0	**NO ₃ -EPA 8270C & PAHs 8270 SIM	**PCB/aPCT's EPA 8082	**Dioxin/Furan EPA 1631B	**Pesticides EPA 814.0	**Hex Chlorine EPA 7199	**HI EPA 9045C/2040B	Pesticidate Confirmation by EPA 8260 (10%)	**Pesticidate EPA 8081A (surface soil only)	**Pesticidate EPA 8151 (surface soil only)	VOCs/EPA 8260B \$	1,4-Dioxane EPA 8260BIM \$	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1631C	**Emergents EPA 8330A	**Cyanide EPA 8012B		**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																								
SL-102-SA7-SB-4.5MS	9/26/11	0905	SOIL	NONE	8-Encores										X												2 Extra Encores collected		
SL-102-SA7-SB-4.0-5.0MS	9/26/11	0910	SOIL	NONE	9-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X	MS/MSD Sample	
SL-102-SA7-SB-9.5	9/26/11	0933	SOIL	NONE	2-Encores										X												MS/MSD Sample		
SL-102-SA7-SB-9.0-10.0	9/26/11	0930	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X		
SL-109-SA7-SB-4.5	9/26/11	1210	SOIL	NONE	2-Encores											X													
SL-109-SA7-SB-4.0-5.0	9/26/11	1213	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X		
SL-109-SA7-SB-9.5	9/26/11	1218	SOIL	NONE	2-Encores											X													
SL-109-SA7-SB-9.0-10.0	9/26/11	1220	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X		
SL-126-SA7-SB-4.0-5.0MS	9/26/11	1452	SOIL	NONE	8-16 oz jars	X	X	X	X	X	X	X	X														MS/MSD Sample		
SL-170-SA7-SB-4.5	9/26/11	1110	SOIL	NONE	2-Encores											X													
SL-170-SA7-SB-4.0-5.0	9/26/11	1115	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X		
SL-170-SA7-SB-9.5	9/26/11	1123	SOIL	NONE	2-Encores											X													
SL-170-SA7-SB-9.0-10.0	9/26/11	1130	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X		
DUP007-SA7-QC-092611	9/26/11	0923	SOIL	NONE	8-Encores												X												
DUP007-SA7-QC-092611	9/26/11	0923	SOIL	NONE	2-16 oz Jars		X	X	X	X	X	X	X					X	X	X	X			X	X	X	X		
DUP008-SA7-QC-092611	9/26/11	1500	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																
TB-092611	9/26/11	1430	WATER	NONE	2-40mL vials											X													
Relinquished by: (Signature) <i>[Signature]</i>						Date/Time 09/19/2011 / 1600						Received for Laboratory by: (Signature) <i>[Signature]</i> 9/27/11 0900																Laboratory: Lancaster Laboratories, Inc.	
Received by: (Signature) <i>[Signature]</i>						Date/Time						Airbill Note(s)						8767 9858 3428; 8767 9858 3439 8767 9858 3440											

Explanation of Symbols and Abbreviations

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

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 26, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/28/2011

Group Number: 1268676

SDG: DE256

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionLancaster Labs (LLI) #

SL-004-SA5DS-SS-0.0-0.5 Soil	6421288
SL-005-SA5DS-SS-0.0-0.5 Soil	6421289
SL-006-SA5DS-SS-0.0-0.5 Soil	6421290
SL-019-SA5DS-SS-0.0-0.5 Soil	6421291
SL-020-SA5DS-SS-0.0-0.5 Soil	6421292
SL-021-SA5DS-SS-0.0-0.5 Soil	6421293
SL-022-SA5DS-SS-0.0-0.5 Soil	6421294
SL-023-SA5DS-SS-0.0-0.5 Soil	6421295
SL-024-SA5DS-SS-0.0-0.5 Soil	6421296
SL-025-SA5DS-SS-0.0-0.5 Soil	6421297
SL-038-SA5DS-SS-0.0-0.5 Soil	6421298
SL-103-SA7-SB-4.0-5.0 Soil	6421299
SL-103-SA7-SB-4.0-5.0MS Soil	6421300
SL-103-SA7-SB-4.0-5.0MSD Soil	6421301
SL-103-SA7-SB-4.0-5.0DUP Soil	6421302
SL-103-SA7-SB-4.0-5.0RL MS Soil	6421303
SL-103-SA7-SB-4.0-5.0RL LCS Soil	6421304
SL-103-SA7-SB-9.0-10.0 Soil	6421305
SL-104-SA7-SB-4.0-5.0 Soil	6421306
SL-104-SA7-SB-9.0-10.0 Soil	6421307
SL-105-SA7-SB-4.0-5.0 Soil	6421308
SL-172-SA7-SB-4.0-5.0 Soil	6421309
SL-172-SA7-SB-9.0-10.0 Soil	6421310
DUP-09-SA7-QC-092711 Soil	6421311
TB-092711 Water	6421312
EB-SA7-SB-092711 Water	6421313

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

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

Attn: Todd Burgess

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

Respectfully Submitted,


Sarah M. Snyder
Senior Specialist



Analysis Report

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Page 1 of 6

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421288
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5601 SDG#: DE256-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	500		1
04688	Benzyl alcohol	100-51-6	170	U 170	500		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	67	U 67	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	67	U 67	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	500		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	500		1
04688	Phenol	108-95-2	17	U 17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421288
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5601 SDG#: DE256-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.81	J 0.67	1.7		1
10138	Benzo(a)pyrene	50-32-8	1.6	J 0.67	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	7.5	U 0.67	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	1.1	J 0.67	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.0	U 6.0	18		1
10138	Di-n-butylphthalate	84-74-2	6.0	U 6.0	18		1
10138	Chrysene	218-01-9	2.1	U 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7		1
10138	Diethylphthalate	84-66-2	6.0	U 6.0	18		1
10138	Dimethylphthalate	131-11-3	6.0	U 6.0	18		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J 6.0	18		1
10138	Fluoranthene	206-44-0	2.9	U 0.67	1.7		1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	J 0.67	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.78	J 0.67	1.7		1
10138	2-Methylnaphthalene	91-57-6	1.2	J 0.67	1.7		1
10138	Naphthalene	91-20-3	3.5	U 0.67	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.0	U 6.0	18		1
10138	Phenanthrene	85-01-8	2.0	U 0.67	1.7		1
10138	Pyrene	129-00-0	2.3	U 0.67	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	3.3	U 3.3	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.2		1
10401	2,4-DB	94-82-6	6.4	U 0.63	1.7		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4		1
10401	2,4-DP (Dichloroprop)	120-36-5	1.3	U 1.3	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	0.32	U 0.32	0.32		1
10401	2,4,5-TP	93-72-1	0.19	U 0.076	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.035	U 0.035	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.035	U 0.035	0.17		1
01363	Chlordane	57-74-9	7.4	U 0.81	3.5		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421288
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5601 SDG#: DE256-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35		1
01363	p,p-DDE	72-55-9	0.23 U	0.23	0.35		1
01363	p,p-DDT	50-29-3	0.86	0.067	0.35		1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.35		1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17		1
01363	Endosulfan II	33213-65-9	0.075 U	0.075	0.35		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35		1
01363	Endrin	72-20-8	0.067 U	0.067	0.35		1
01363	Endrin Aldehyde	7421-93-4	0.50 U	0.50	0.50		1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.35		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17		1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7		1
01363	Mirex	2385-85-5	0.16 U	0.16	0.35		1
01363	Toxaphene	8001-35-2	10	2.2	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.2 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.51 J	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.67 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	14,300	6.09	20.1	1
07914	Boron	7440-42-8	10.5	0.363	5.04	1
01650	Calcium	7440-70-2	3,540	2.52	20.1	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 4 of 6

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421288
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5601 SDG#: DE256-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	26,100	2.63	20.1		1
01656	Lithium	7439-93-2	20.1	0.62	2.0		1
01657	Magnesium	7439-95-4	5,060	0.443	10.1		1
06958	Manganese	7439-96-5	289	0.0363	0.504		1
10145	Phosphorus	7723-14-0	715	0.353	10.1		1
01662	Potassium	7440-09-7	2,490	11.4	50.4		1
01667	Sodium	7440-23-5	93.6 J	5.99	101		1
07968	Strontium	7440-24-6	20.1	0.0252	0.504		1
06969	Tin	7440-31-5	1.04 J	0.322	10.1		1
06970	Titanium	7440-32-6	1,110	0.0715	1.01		1
10146	Zirconium	7440-67-7	5.39	0.463	5.04		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.105 J	0.0745	0.201		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.22	0.0806	0.403		2
06126	Barium	7440-39-3	54.3	0.107	0.403		2
06127	Beryllium	7440-41-7	0.416	0.0161	0.101		2
06128	Cadmium	7440-43-9	0.160	0.0443	0.101		2
06131	Chromium	7440-47-3	34.4	0.121	0.403		2
06132	Cobalt	7440-48-4	5.83	0.0201	0.101		2
06133	Copper	7440-50-8	5.54	0.0806	0.403		2
06135	Lead	7439-92-1	15.0	0.0103	0.201		2
06138	Molybdenum	7439-98-7	0.414	0.0504	0.101		2
06139	Nickel	7440-02-0	9.66	0.101	0.403		2
06141	Selenium	7782-49-2	0.350 J	0.0584	0.403		2
06142	Silver	7440-22-4	0.0252 J	0.0143	0.101		2
06145	Thallium	7440-28-0	0.157	0.0302	0.101		2
06148	Vanadium	7440-62-2	58.4	0.0222	0.101		2
06149	Zinc	7440-66-6	53.9	0.564	3.02		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0103 J	0.0071	0.101		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.0	0.82	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.97 J	0.20	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421288
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

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

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 13:44

E5601 SDG#: DE256-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	5.96	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	1.7	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	11279SLC026	10/12/2011 18:21	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 00:43	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 14:45	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/11/2011 23:50	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/19/2011 23:06	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 01:45	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421288
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5601 SDG#: DE256-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 07:48	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 08:36	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:20	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:20	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:20	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:20	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 18:51	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 16:30	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 07:41	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 15:01	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 1 of 6

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421289
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 13:44

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

E5602 SDG#: DE256-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	500		1
04688	Benzyl alcohol	100-51-6	170	U 170	500		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	67	U 67	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	19	J 17	340		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	67	U 67	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	500		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	500		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421289
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5602 SDG#: DE256-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	17	U 17	170		1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.76	J 0.67	1.7		1
10138	Benzo(a)pyrene	50-32-8	1.0	J 0.67	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	3.3	0.67	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.67	U 0.67	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.1	U 6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	1.4	J 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Fluoranthene	206-44-0	1.9	0.67	1.7		1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67	U 0.67	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.67	U 0.67	1.7		1
10138	Naphthalene	91-20-3	0.71	J 0.67	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	1.1	J 0.67	1.7		1
10138	Pyrene	129-00-0	1.7	0.67	1.7		1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.5	U 1.5	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.1		1
10401	2,4-DB	94-82-6	3.0	U 3.0	3.0		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U 0.81	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	0.083	U 0.083	0.17		1
10401	2,4,5-TP	93-72-1	0.75	0.076	0.17		1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg		
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.035	U 0.035	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.035	U 0.035	0.17		1
01363	Chlordane	57-74-9	0.81	U 0.81	3.5		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421289
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5602 SDG#: DE256-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35		1
01363	p,p-DDE	72-55-9	0.067 U	0.067	0.35		1
01363	p,p-DDT	50-29-3	0.067 U	0.067	0.35		1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.35		1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17		1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.35		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35		1
01363	Endrin	72-20-8	0.067 U	0.067	0.35		1
01363	Endrin Aldehyde	7421-93-4	0.067 U	0.067	0.35		1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.35		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17		1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.35		1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.7		1

The sample was injected following maintenance and a new calibration.
Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	14,500	6.08	20.1	1
07914	Boron	7440-42-8	9.43	0.362	5.03	1
01650	Calcium	7440-70-2	3,540	2.51	20.1	1
01654	Iron	7439-89-6	21,800	2.62	20.1	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421289
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5602 SDG#: DE256-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	19.4	0.62	2.0		1
01657	Magnesium	7439-95-4	5,140	0.442	10.1		1
06958	Manganese	7439-96-5	268	0.0362	0.503		1
10145	Phosphorus	7723-14-0	808	0.352	10.1		1
01662	Potassium	7440-09-7	2,260	11.4	50.3		1
01667	Sodium	7440-23-5	91.1 J	5.98	101		1
07968	Strontium	7440-24-6	20.9	0.0251	0.503		1
06969	Tin	7440-31-5	1.06 J	0.322	10.1		1
06970	Titanium	7440-32-6	999	0.0714	1.01		1
10146	Zirconium	7440-67-7	3.56 J	0.462	5.03		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.112 J	0.0715	0.193		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	4.67	0.0774	0.387		2
06126	Barium	7440-39-3	51.4	0.102	0.387		2
06127	Beryllium	7440-41-7	0.424	0.0155	0.0967		2
06128	Cadmium	7440-43-9	0.161	0.0425	0.0967		2
06131	Chromium	7440-47-3	32.9	0.116	0.387		2
06132	Cobalt	7440-48-4	6.46	0.0193	0.0967		2
06133	Copper	7440-50-8	5.55	0.0774	0.387		2
06135	Lead	7439-92-1	11.9	0.0099	0.193		2
06138	Molybdenum	7439-98-7	0.366	0.0483	0.0967		2
06139	Nickel	7440-02-0	10.2	0.0967	0.387		2
06141	Selenium	7782-49-2	0.244 J	0.0561	0.387		2
06142	Silver	7440-22-4	0.0236 J	0.0137	0.0967		2
06145	Thallium	7440-28-0	0.150	0.0290	0.0967		2
06148	Vanadium	7440-62-2	56.9	0.0213	0.0967		2
06149	Zinc	7440-66-6	50.5	0.541	2.90		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 J	0.0066	0.0945		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.82	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.92 J	0.20	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.03	0.0100	0.0100		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421289
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/28/2011 09:00

Suite 210

Reported: 10/26/2011 13:44

Chantilly VA 20151

E5602 SDG#: DE256-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	1.5	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	11279SLC026	10/12/2011 18:45	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 01:15	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 16:08	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 00:05	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/19/2011 23:25	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 01:57	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 07:52	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 08:48	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421289
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5602 SDG#: DE256-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:23	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:23	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:23	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:23	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 18:52	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 17:08	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 08:51	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 15:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 1 of 6

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421290
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5603 SDG#: DE256-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	67	U 67	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	51	J 17	340		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	67	U 67	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1

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

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Analysis Report

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

Page 2 of 6

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421290
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5603 SDG#: DE256-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	17	U 17	170		1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.78	J 0.68	1.7		1
10138	Benzo(a)pyrene	50-32-8	1.2	J 0.68	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	5.8	U 0.68	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	J 0.68	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.1	U 6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	2.0	U 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Fluoranthene	206-44-0	2.3	U 0.68	1.7		1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7		1
10138	1-Methylnaphthalene	90-12-0	1.2	J 0.68	1.7		1
10138	2-Methylnaphthalene	91-57-6	1.8	U 0.68	1.7		1
10138	Naphthalene	91-20-3	5.9	U 0.68	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	2.0	U 0.68	1.7		1
10138	Pyrene	129-00-0	1.9	U 0.68	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	2.0	J 1.2	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.2		1
10401	2,4-DB	94-82-6	2.6	U 2.6	2.6		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U 0.81	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	0.26	U 0.26	0.26		1
10401	2,4,5-TP	93-72-1	0.55	U 0.076	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.035	U 0.035	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.035	U 0.035	0.17		1
01363	Chlordane	57-74-9	3.8	U 0.81	3.5		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421290
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5603 SDG#: DE256-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35		1
01363	p,p-DDE	72-55-9	1.0	0.067	0.35		1
01363	p,p-DDT	50-29-3	0.63	0.067	0.35		1
01363	Delta BHC	319-86-8	0.059 U	0.059	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.35		1
01363	Endosulfan I	959-98-8	0.080 U	0.080	0.17		1
01363	Endosulfan II	33213-65-9	0.14 U	0.14	0.35		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35		1
01363	Endrin	72-20-8	0.067 U	0.067	0.35		1
01363	Endrin Aldehyde	7421-93-4	0.17 U	0.17	0.35		1
01363	Endrin Ketone	53494-70-5	0.076 U	0.076	0.35		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.063 U	0.063	0.17		1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.35		1
01363	Toxaphene	8001-35-2	7.2 U	7.2	7.2		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The DCB surrogate data is above the client specified limits of 20-120%; however the recovery is within our in house statistical limits of 45-150%

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.9 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	1.2 J	0.34	1.7	1
10225	PCB-1260	11096-82-5	1.0 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	15,900	5.87	19.4	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421290
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5603 SDG#: DE256-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	9.88	0.349	4.85		1
01650	Calcium	7440-70-2	3,840	2.42	19.4		1
01654	Iron	7439-89-6	22,700	2.53	19.4		1
01656	Lithium	7439-93-2	18.8	0.60	1.9		1
01657	Magnesium	7439-95-4	4,870	0.427	9.70		1
06958	Manganese	7439-96-5	285	0.0349	0.485		1
10145	Phosphorus	7723-14-0	825	0.339	9.70		1
01662	Potassium	7440-09-7	3,100	11.0	48.5		1
01667	Sodium	7440-23-5	85.9 J	5.77	97.0		1
07968	Strontium	7440-24-6	24.4	0.0242	0.485		1
06969	Tin	7440-31-5	0.816 J	0.310	9.70		1
06970	Titanium	7440-32-6	1,120	0.0702	0.989		1
10146	Zirconium	7440-67-7	7.79	0.446	4.85		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.134 J	0.0746	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	4.79	0.0807	0.403		2
06126	Barium	7440-39-3	61.5	0.107	0.403		2
06127	Beryllium	7440-41-7	0.450	0.0161	0.101		2
06128	Cadmium	7440-43-9	0.208	0.0444	0.101		2
06131	Chromium	7440-47-3	32.1	0.121	0.403		2
06132	Cobalt	7440-48-4	6.37	0.0202	0.101		2
06133	Copper	7440-50-8	5.97	0.0807	0.403		2
06135	Lead	7439-92-1	12.1	0.0103	0.202		2
06138	Molybdenum	7439-98-7	0.407	0.0504	0.101		2
06139	Nickel	7440-02-0	10.7	0.101	0.403		2
06141	Selenium	7782-49-2	0.178 J	0.0585	0.403		2
06142	Silver	7440-22-4	0.0282 J	0.0143	0.101		2
06145	Thallium	7440-28-0	0.171	0.0302	0.101		2
06148	Vanadium	7440-62-2	56.6	0.0222	0.101		2
06149	Zinc	7440-66-6	52.8	0.565	3.02		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0109 J	0.0068	0.0963		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.82	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421290
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5603 SDG#: DE256-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.25	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	1.8	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	11279SLC026	10/12/2011 19:10	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 01:47	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 16:35	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 00:20	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/19/2011 23:43	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:01	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421290
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5603 SDG#: DE256-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:03	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 08:52	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:33	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:33	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:33	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:33	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 18:54	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 17:21	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 09:37	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 15:23	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 1 of 6

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421291
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5604 SDG#: DE256-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	68	U 68	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	68	U 68	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1
04688	Phenol	108-95-2	17	U 17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421291
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5604 SDG#: DE256-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7		1
10138	Acenaphthylene	208-96-8	0.33	U 0.33	1.7		1
10138	Anthracene	120-12-7	0.33	U 0.33	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.67	U 0.67	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.67	U 0.67	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	1.4	J 0.67	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.67	U 0.67	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.0	U 6.0	18		1
10138	Di-n-butylphthalate	84-74-2	6.0	U 6.0	18		1
10138	Chrysene	218-01-9	0.36	J 0.33	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7		1
10138	Diethylphthalate	84-66-2	6.0	U 6.0	18		1
10138	Dimethylphthalate	131-11-3	6.0	U 6.0	18		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.0	U 6.0	18		1
10138	Fluoranthene	206-44-0	0.67	U 0.67	1.7		1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67	U 0.67	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.67	U 0.67	1.7		1
10138	Naphthalene	91-20-3	0.67	U 0.67	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.0	U 6.0	18		1
10138	Phenanthrene	85-01-8	0.67	U 0.67	1.7		1
10138	Pyrene	129-00-0	0.67	U 0.67	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.2		1
10401	2,4-DB	94-82-6	0.63	U 0.63	1.7		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4		1
10401	2,4-DP (Dichloroprop)	120-36-5	0.81	U 0.81	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	0.17	U 0.17	0.17		1
10401	2,4,5-TP	93-72-1	0.26	0.076	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.034	U 0.034	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.034	U 0.034	0.17		1
01363	Chlordane	57-74-9	0.81	U 0.81	3.4		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421291
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5604 SDG#: DE256-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34		1
01363	p,p-DDE	72-55-9	0.23 J	0.067	0.34		1
01363	p,p-DDT	50-29-3	0.067 U	0.067	0.34		1
01363	Delta BHC	319-86-8	0.036 U	0.036	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34		1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17		1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34		1
01363	Endrin	72-20-8	0.067 U	0.067	0.34		1
01363	Endrin Aldehyde	7421-93-4	0.086 J	0.067	0.34		1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.034 U	0.034	0.17		1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34		1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1
10225	PCB-1260	11096-82-5	0.52 J	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	16,100	6.03	19.9	1
07914	Boron	7440-42-8	9.42	0.359	4.99	1
01650	Calcium	7440-70-2	3,250	2.49	19.9	1
01654	Iron	7439-89-6	21,900	2.60	19.9	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421291
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5604 SDG#: DE256-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	17.8	0.62	2.0		1
01657	Magnesium	7439-95-4	5,120	0.439	9.97		1
06958	Manganese	7439-96-5	252	0.0359	0.499		1
10145	Phosphorus	7723-14-0	668	0.349	9.97		1
01662	Potassium	7440-09-7	2,830	11.3	49.9		1
01667	Sodium	7440-23-5	86.7 J	5.93	99.7		1
07968	Strontium	7440-24-6	20.2	0.0249	0.499		1
06969	Tin	7440-31-5	0.959 J	0.319	9.97		1
06970	Titanium	7440-32-6	1,120	0.0708	0.997		1
10146	Zirconium	7440-67-7	7.94	0.459	4.99		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0922 J	0.0745	0.201		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.73	0.0806	0.403		2
06126	Barium	7440-39-3	64.8	0.107	0.403		2
06127	Beryllium	7440-41-7	0.464	0.0161	0.101		2
06128	Cadmium	7440-43-9	0.191	0.0443	0.101		2
06131	Chromium	7440-47-3	34.8	0.121	0.403		2
06132	Cobalt	7440-48-4	6.28	0.0201	0.101		2
06133	Copper	7440-50-8	5.38	0.0806	0.403		2
06135	Lead	7439-92-1	10.5	0.0103	0.201		2
06138	Molybdenum	7439-98-7	0.351	0.0504	0.101		2
06139	Nickel	7440-02-0	10.4	0.101	0.403		2
06141	Selenium	7782-49-2	0.190 J	0.0584	0.403		2
06142	Silver	7440-22-4	0.0210 J	0.0143	0.101		2
06145	Thallium	7440-28-0	0.173	0.0302	0.101		2
06148	Vanadium	7440-62-2	58.8	0.0222	0.101		2
06149	Zinc	7440-66-6	48.4	0.564	3.02		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0135 J	0.0070	0.0991		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.81	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	5.90	0.0100	0.0100		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421291
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5604 SDG#: DE256-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	1.7	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	11279SLC026	10/12/2011 19:35	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 02:19	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 17:02	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 00:35	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 00:02	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:05	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:08	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 08:56	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421291
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5604 SDG#: DE256-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:36	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:36	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:36	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:36	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 18:55	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 17:34	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 10:00	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 15:37	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 6

Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421292
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5605 SDG#: DE256-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	67	U 67	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	67	U 67	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1
04688	Phenol	108-95-2	17	U 17	170		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421292
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5605 SDG#: DE256-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.76	J 0.68	1.7		1
10138	Benzo(a)pyrene	50-32-8	1.1	J 0.68	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	3.8	U 0.68	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.71	J 0.68	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.6	J 6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	1.7	U 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	16	J 6.1	18		1
10138	Fluoranthene	206-44-0	1.9	U 0.68	1.7		1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7		1
10138	Naphthalene	91-20-3	1.0	J 0.68	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	1.0	J 0.68	1.7		1
10138	Pyrene	129-00-0	1.6	J 0.68	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.1		1
10401	2,4-DB	94-82-6	1.1	U 1.1	1.7		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U 0.81	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	0.20	U 0.20	0.20		1
10401	2,4,5-TP	93-72-1	0.45	U 0.076	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.034	U 0.034	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.034	U 0.034	0.17		1
01363	Chlordane	57-74-9	2.9	J 0.81	3.4		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421292
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5605 SDG#: DE256-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34		1
01363	p,p-DDE	72-55-9	1.0	0.067	0.34		1
01363	p,p-DDT	50-29-3	0.99	0.067	0.34		1
01363	Delta BHC	319-86-8	0.036 U	0.036	0.17		1
01363	Dieldrin	60-57-1	0.17 U	0.17	0.34		1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17		1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.34		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34		1
01363	Endrin	72-20-8	0.067 U	0.067	0.34		1
01363	Endrin Aldehyde	7421-93-4	0.22 U	0.22	0.34		1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.34		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.097 U	0.097	0.17		1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34		1
01363	Toxaphene	8001-35-2	5.8 U	5.8	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	2.0 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	1.2 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	0.87 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	15,300	6.02	19.9	1
07914	Boron	7440-42-8	9.48	0.358	4.97	1
01650	Calcium	7440-70-2	3,440	2.49	19.9	1

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

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Analysis Report

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Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421292
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5605 SDG#: DE256-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	21,400	2.60	19.9		1
01656	Lithium	7439-93-2	18.3	0.62	2.0		1
01657	Magnesium	7439-95-4	4,930	0.437	9.94		1
06958	Manganese	7439-96-5	281	0.0358	0.497		1
10145	Phosphorus	7723-14-0	715	0.348	9.94		1
01662	Potassium	7440-09-7	2,670	11.2	49.7		1
01667	Sodium	7440-23-5	88.1 J	5.92	99.4		1
07968	Strontium	7440-24-6	21.4	0.0249	0.497		1
06969	Tin	7440-31-5	0.969 J	0.318	9.94		1
06970	Titanium	7440-32-6	1,100	0.0706	0.994		1
10146	Zirconium	7440-67-7	6.66	0.457	4.97		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.107 J	0.0751	0.203		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.58	0.0811	0.406		2
06126	Barium	7440-39-3	65.0	0.108	0.406		2
06127	Beryllium	7440-41-7	0.441	0.0162	0.101		2
06128	Cadmium	7440-43-9	0.166	0.0446	0.101		2
06131	Chromium	7440-47-3	31.2	0.122	0.406		2
06132	Cobalt	7440-48-4	6.28	0.0203	0.101		2
06133	Copper	7440-50-8	6.20	0.0811	0.406		2
06135	Lead	7439-92-1	12.4	0.0103	0.203		2
06138	Molybdenum	7439-98-7	0.438	0.0507	0.101		2
06139	Nickel	7440-02-0	10.1	0.101	0.406		2
06141	Selenium	7782-49-2	0.190 J	0.0588	0.406		2
06142	Silver	7440-22-4	0.0708 J	0.0144	0.101		2
06145	Thallium	7440-28-0	0.149	0.0304	0.101		2
06148	Vanadium	7440-62-2	54.8	0.0223	0.101		2
06149	Zinc	7440-66-6	50.0	0.568	3.04		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0088 J	0.0067	0.0959		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.81	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.4		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.7	0.20	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

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Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421292
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5605 SDG#: DE256-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	5.99	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	1.4	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	11279SLC026	10/12/2011 20:00	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 02:51	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 17:30	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 00:50	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 00:20	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:10	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1

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

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Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421292
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5605 SDG#: DE256-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:12	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:01	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:39	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:39	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:39	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:39	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 18:56	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 17:46	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 10:23	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 15:59	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 6

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421293
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5606 SDG#: DE256-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	68	U 68	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	68	U 68	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1
04688	Phenol	108-95-2	17	U 17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421293
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5606 SDG#: DE256-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.68	U 0.68	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.68	U 0.68	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	4.0	U 0.68	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.68	U 0.68	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.1	U 6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	0.93	J 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.1	J 6.1	18		1
10138	Fluoranthene	206-44-0	0.98	J 0.68	1.7		1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7		1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	0.76	J 0.68	1.7		1
10138	Pyrene	129-00-0	0.86	J 0.68	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.1		1
10401	2,4-DB	94-82-6	29	U 29	29		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4		1
10401	2,4-DP (Dichloroprop)	120-36-5	0.81	U 0.81	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	0.083	U 0.083	0.17		1
10401	2,4,5-TP	93-72-1	0.13	J 0.076	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.034	U 0.034	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.034	U 0.034	0.17		1
01363	Chlordane	57-74-9	1.6	J 0.81	3.4		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421293
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5606 SDG#: DE256-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34		1
01363	p,p-DDE	72-55-9	0.21 U	0.21	0.34		1
01363	p,p-DDT	50-29-3	0.32 U	0.32	0.34		1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34		1
01363	Endosulfan I	959-98-8	0.21 U	0.21	0.21		1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34		1
01363	Endrin	72-20-8	0.067 U	0.067	0.34		1
01363	Endrin Aldehyde	7421-93-4	0.067 U	0.067	0.34		1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.034 U	0.034	0.17		1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34		1
01363	Toxaphene	8001-35-2	2.6 J	2.2	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.6 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.89 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	0.71 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	15,600	5.97	19.7	1
07914	Boron	7440-42-8	9.65	0.355	4.93	1
01650	Calcium	7440-70-2	3,510	2.47	19.7	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421293
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5606 SDG#: DE256-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	21,000	2.58	19.7		1
01656	Lithium	7439-93-2	17.7	0.61	2.0		1
01657	Magnesium	7439-95-4	5,000	0.434	9.87		1
06958	Manganese	7439-96-5	399	0.0355	0.493		1
10145	Phosphorus	7723-14-0	740	0.345	9.87		1
01662	Potassium	7440-09-7	2,370	11.1	49.3		1
01667	Sodium	7440-23-5	91.3 J	5.87	98.7		1
07968	Strontium	7440-24-6	23.6	0.0247	0.493		1
06969	Tin	7440-31-5	1.08 J	0.316	9.87		1
06970	Titanium	7440-32-6	1,030	0.0707	0.996		1
10146	Zirconium	7440-67-7	4.06 J	0.454	4.93		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.100 J	0.0730	0.197		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	4.61	0.0789	0.395		2
06126	Barium	7440-39-3	79.4	0.105	0.395		2
06127	Beryllium	7440-41-7	0.452	0.0158	0.0987		2
06128	Cadmium	7440-43-9	0.163	0.0434	0.0987		2
06131	Chromium	7440-47-3	33.3	0.118	0.395		2
06132	Cobalt	7440-48-4	5.61	0.0197	0.0987		2
06133	Copper	7440-50-8	5.40	0.0789	0.395		2
06135	Lead	7439-92-1	8.71	0.0101	0.197		2
06138	Molybdenum	7439-98-7	0.365	0.0493	0.0987		2
06139	Nickel	7440-02-0	10.4	0.0987	0.395		2
06141	Selenium	7782-49-2	0.170 J	0.0572	0.395		2
06142	Silver	7440-22-4	0.0207 J	0.0140	0.0987		2
06145	Thallium	7440-28-0	0.167	0.0296	0.0987		2
06148	Vanadium	7440-62-2	55.2	0.0217	0.0987		2
06149	Zinc	7440-66-6	46.9	0.553	2.96		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0115 J	0.0068	0.0972		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.82	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.65 J	0.20	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

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Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421293
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5606 SDG#: DE256-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.14	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	1.6	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	11279SLC026	10/12/2011 20:25	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 03:24	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 17:57	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 01:06	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 00:57	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:14	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421293
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5606 SDG#: DE256-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:16	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:05	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:42	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:42	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:42	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:42	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 18:58	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 17:59	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 10:46	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 16:06	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 6

Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421294
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5607 SDG#: DE256-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	68	U 68	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	68	U 68	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	170	U 170	510		1
04688	Phenol	108-95-2	17	U 17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421294
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5607 SDG#: DE256-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	1.1	J 0.68	1.7		1
10138	Benzo(a)pyrene	50-32-8	2.0	0.68	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	7.3	0.68	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	1.1	J 0.68	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7		1
10138	Butylbenzylphthalate	85-68-7	10	J 6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	2.5	0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	23	6.1	18		1
10138	Fluoranthene	206-44-0	3.8	0.68	1.7		1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.89	J 0.68	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7		1
10138	Naphthalene	91-20-3	0.87	J 0.68	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	2.2	0.68	1.7		1
10138	Pyrene	129-00-0	3.2	0.68	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	4.2	1.2	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.2		1
10401	2,4-DB	94-82-6	8.8	0.63	1.7		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4		1
10401	2,4-DP (Dichloroprop)	120-36-5	0.81	U 0.81	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	0.20	U 0.20	0.20		1
10401	2,4,5-TP	93-72-1	0.50	0.076	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.034	U 0.034	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.034	U 0.034	0.17		1
01363	Chlordane	57-74-9	5.8	0.81	3.4		1

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Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421294
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5607 SDG#: DE256-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.19 U	0.19	0.34		1
01363	p,p-DDE	72-55-9	0.68	0.067	0.34		1
01363	p,p-DDT	50-29-3	0.77	0.067	0.34		1
01363	Delta BHC	319-86-8	0.046 J	0.036	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34		1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17		1
01363	Endosulfan II	33213-65-9	0.12 U	0.12	0.34		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34		1
01363	Endrin	72-20-8	0.067 U	0.067	0.34		1
01363	Endrin Aldehyde	7421-93-4	0.20 U	0.20	0.34		1
01363	Endrin Ketone	53494-70-5	0.097 J	0.067	0.34		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.041 U	0.041	0.17		1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34		1
01363	Toxaphene	8001-35-2	5.9 U	5.9	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	2.0 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	1.2 J	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.97 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

The surrogate recovery was outside the client specified QC limits at 123% for DCB. However, the recovery is within our in house statistical limits of 53-142%. The data is reported.

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	16,100	6.10	20.2	1

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Analysis Report

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Page 4 of 6

Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421294
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5607 SDG#: DE256-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	10.3	0.363	5.04		1
01650	Calcium	7440-70-2	3,560	2.52	20.2		1
01654	Iron	7439-89-6	22,800	2.63	20.2		1
01656	Lithium	7439-93-2	20.2	0.63	2.0		1
01657	Magnesium	7439-95-4	5,050	0.444	10.1		1
06958	Manganese	7439-96-5	306	0.0363	0.504		1
10145	Phosphorus	7723-14-0	715	0.353	10.1		1
01662	Potassium	7440-09-7	3,490	11.4	50.4		1
01667	Sodium	7440-23-5	83.9 J	6.00	101		1
07968	Strontium	7440-24-6	23.1	0.0252	0.504		1
06969	Tin	7440-31-5	1.03 J	0.323	10.1		1
06970	Titanium	7440-32-6	812	0.0709	0.998		1
10146	Zirconium	7440-67-7	5.84	0.464	5.04		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.108 J	0.0746	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	4.40	0.0807	0.403		2
06126	Barium	7440-39-3	64.3	0.107	0.403		2
06127	Beryllium	7440-41-7	0.430	0.0161	0.101		2
06128	Cadmium	7440-43-9	0.195	0.0444	0.101		2
06131	Chromium	7440-47-3	31.7	0.121	0.403		2
06132	Cobalt	7440-48-4	6.79	0.0202	0.101		2
06133	Copper	7440-50-8	6.34	0.0807	0.403		2
06135	Lead	7439-92-1	9.99	0.0103	0.202		2
06138	Molybdenum	7439-98-7	0.457	0.0504	0.101		2
06139	Nickel	7440-02-0	10.8	0.101	0.403		2
06141	Selenium	7782-49-2	0.217 J	0.0585	0.403		2
06142	Silver	7440-22-4	0.0204 J	0.0143	0.101		2
06145	Thallium	7440-28-0	0.146	0.0302	0.101		2
06148	Vanadium	7440-62-2	55.3	0.0222	0.101		2
06149	Zinc	7440-66-6	50.3	0.565	3.02		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0193 J	0.0070	0.0997		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.83 U	0.83	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.56 J	0.20	1.0		1

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

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Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421294
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

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

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 13:44

E5607 SDG#: DE256-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.05	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	1.8	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	11279SLC026	10/12/2011 20:50	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 03:56	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 18:24	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 01:20	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 01:16	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:18	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421294
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5607 SDG#: DE256-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:20	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:09	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:45	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:45	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:45	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:45	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 18:59	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 18:37	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 11:09	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 16:20	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 1 of 6

Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421295
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5608 SDG#: DE256-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	68	U 68	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	68	U 68	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1
04688	Phenol	108-95-2	17	U 17	170		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421295
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5608 SDG#: DE256-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	1.5	J 0.68	1.7		1
10138	Benzo(a)pyrene	50-32-8	1.7	J 0.68	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	2.8	U 0.68	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.68	U 0.68	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.90	J 0.68	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.1	U 6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	1.6	J 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	J 6.1	18		1
10138	Fluoranthene	206-44-0	1.9	U 0.68	1.7		1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7		1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	0.68	U 0.68	1.7		1
10138	Pyrene	129-00-0	2.9	U 0.68	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.2		1
10401	2,4-DB	94-82-6	3.2	U 3.2	3.2		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.82	U 0.82	2.4		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.82	U 0.82	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	0.36	U 0.36	0.36		1
10401	2,4,5-TP	93-72-1	0.076	U 0.076	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.035	U 0.035	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.035	U 0.035	0.17		1
01363	Chlordane	57-74-9	1.8	J 0.82	3.5		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421295
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5608 SDG#: DE256-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35		1
01363	p,p-DDE	72-55-9	0.25 J	0.067	0.35		1
01363	p,p-DDT	50-29-3	0.38	0.067	0.35		1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.35		1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17		1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.35		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35		1
01363	Endrin	72-20-8	0.067 U	0.067	0.35		1
01363	Endrin Aldehyde	7421-93-4	0.075 U	0.075	0.35		1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.35		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17		1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.35		1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

The TCX surrogate data associated with the blank and this sample is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.6 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.64 J	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.75 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421295
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5608 SDG#: DE256-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
second extraction 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	mg/kg	
01643	Aluminum	7429-90-5	15,000	6.11	20.2		1
07914	Boron	7440-42-8	10.1	0.363	5.05		1
01650	Calcium	7440-70-2	3,610	2.52	20.2		1
01654	Iron	7439-89-6	22,000	2.63	20.2		1
01656	Lithium	7439-93-2	20.5	0.63	2.0		1
01657	Magnesium	7439-95-4	5,540	0.444	10.1		1
06958	Manganese	7439-96-5	267	0.0363	0.505		1
10145	Phosphorus	7723-14-0	582	0.353	10.1		1
01662	Potassium	7440-09-7	1,770	11.4	50.5		1
01667	Sodium	7440-23-5	98.7 J	6.01	101		1
07968	Strontium	7440-24-6	21.9	0.0252	0.505		1
06969	Tin	7440-31-5	1.04 J	0.323	10.1		1
06970	Titanium	7440-32-6	750	0.0703	0.990		1
10146	Zirconium	7440-67-7	5.94	0.464	5.05		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.111 J	0.0747	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	4.68	0.0807	0.404		2
06126	Barium	7440-39-3	55.1	0.107	0.404		2
06127	Beryllium	7440-41-7	0.426	0.0161	0.101		2
06128	Cadmium	7440-43-9	0.148	0.0444	0.101		2
06131	Chromium	7440-47-3	32.8	0.121	0.404		2
06132	Cobalt	7440-48-4	6.25	0.0202	0.101		2
06133	Copper	7440-50-8	5.31	0.0807	0.404		2
06135	Lead	7439-92-1	12.3	0.0103	0.202		2
06138	Molybdenum	7439-98-7	0.380	0.0505	0.101		2
06139	Nickel	7440-02-0	10.2	0.101	0.404		2
06141	Selenium	7782-49-2	0.259 J	0.0585	0.404		2
06142	Silver	7440-22-4	0.0152 J	0.0143	0.101		2
06145	Thallium	7440-28-0	0.129	0.0303	0.101		2
06148	Vanadium	7440-62-2	57.6	0.0222	0.101		2
06149	Zinc	7440-66-6	48.4	0.565	3.03		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0118 J	0.0068	0.0967		1
Wet Chemistry	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.7	0.83	1.0		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.6		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421295
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5608 SDG#: DE256-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.09	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	1.9	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	11279SLC026	10/12/2011 21:14	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 13:41	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 18:52	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 01:35	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 01:35	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:22	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1

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

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Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421295
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5608 SDG#: DE256-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:24	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:13	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:48	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:48	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:48	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:48	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:00	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 18:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 11:32	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 16:49	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 1 of 6

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421296
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5609 SDG#: DE256-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	68	U 68	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	18	J 17	340		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	68	U 68	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421296
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5609 SDG#: DE256-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	17	U 17	170		1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.67	U 0.67	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.79	J 0.67	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	2.9	U 0.67	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	1.0	J 0.67	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.0	U 6.0	18		1
10138	Di-n-butylphthalate	84-74-2	6.0	U 6.0	18		1
10138	Chrysene	218-01-9	1.4	J 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7		1
10138	Diethylphthalate	84-66-2	6.0	U 6.0	18		1
10138	Dimethylphthalate	131-11-3	6.0	U 6.0	18		1
10138	Fluoranthene	206-44-0	1.7	U 0.67	1.7		1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70	J 0.67	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.71	J 0.67	1.7		1
10138	Naphthalene	91-20-3	1.6	J 0.67	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.0	U 6.0	18		1
10138	Phenanthrene	85-01-8	1.3	J 0.67	1.7		1
10138	Pyrene	129-00-0	1.5	J 0.67	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.1		1
10401	2,4-DB	94-82-6	1.5	U 1.5	1.7		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4		1
10401	2,4-DP (Dichloroprop)	120-36-5	0.81	U 0.81	1.7		1
10401	MCPA	94-74-6	77	U 77	250		1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250		1
10401	2,4,5-T	93-76-5	1.9	U 0.083	0.17		1
10401	2,4,5-TP	93-72-1	0.41	U 0.076	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.034	U 0.034	0.17		1
01363	Beta BHC	319-85-7	0.061	U 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.034	U 0.034	0.17		1
01363	Chlordane	57-74-9	0.81	U 0.81	3.4		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421296
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5609 SDG#: DE256-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34		1
01363	p,p-DDE	72-55-9	0.067 U	0.067	0.34		1
01363	p,p-DDT	50-29-3	0.067 U	0.067	0.34		1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34		1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17		1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34		1
01363	Endrin	72-20-8	0.067 U	0.067	0.34		1
01363	Endrin Aldehyde	7421-93-4	0.067 U	0.067	0.34		1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.034 U	0.034	0.17		1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34		1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.3 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.89 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	0.39 U	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	11,800	6.09	20.1	1
07914	Boron	7440-42-8	8.87	0.362	5.03	1
01650	Calcium	7440-70-2	4,600	2.52	20.1	1
01654	Iron	7439-89-6	19,200	2.63	20.1	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421296
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5609 SDG#: DE256-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	19.1	0.62	2.0		1
01657	Magnesium	7439-95-4	5,160	0.443	10.1		1
06958	Manganese	7439-96-5	281	0.0362	0.503		1
10145	Phosphorus	7723-14-0	838	0.352	10.1		1
01662	Potassium	7440-09-7	2,320	11.4	50.3		1
01667	Sodium	7440-23-5	111	5.99	101		1
07968	Strontium	7440-24-6	20.5	0.0252	0.503		1
06969	Tin	7440-31-5	0.857 J	0.322	10.1		1
06970	Titanium	7440-32-6	1,090	0.0714	1.01		1
10146	Zirconium	7440-67-7	9.18	0.463	5.03		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.119 J	0.0737	0.199		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.53	0.0797	0.399		2
06126	Barium	7440-39-3	42.5	0.106	0.399		2
06127	Beryllium	7440-41-7	0.389	0.0159	0.0996		2
06128	Cadmium	7440-43-9	0.156	0.0438	0.0996		2
06131	Chromium	7440-47-3	31.2	0.120	0.399		2
06132	Cobalt	7440-48-4	5.49	0.0199	0.0996		2
06133	Copper	7440-50-8	4.43	0.0797	0.399		2
06135	Lead	7439-92-1	8.90	0.0102	0.199		2
06138	Molybdenum	7439-98-7	0.313	0.0498	0.0996		2
06139	Nickel	7440-02-0	9.27	0.0996	0.399		2
06141	Selenium	7782-49-2	0.170 J	0.0578	0.399		2
06142	Silver	7440-22-4	0.0169 J	0.0141	0.0996		2
06145	Thallium	7440-28-0	0.112	0.0299	0.0996		2
06148	Vanadium	7440-62-2	56.4	0.0219	0.0996		2
06149	Zinc	7440-66-6	43.2	0.558	2.99		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0098 J	0.0070	0.100		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.82 U	0.82	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.67 J	0.20	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.65	0.0100	0.0100		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421296
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5609 SDG#: DE256-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	1.6	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	11279SLC026	10/12/2011 21:39	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 08:15	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 19:19	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 01:50	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 01:53	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:26	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:28	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:17	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:51	David K Beck	2

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421296
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5609 SDG#: DE256-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:51	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:51	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:51	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:04	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 19:03	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 11:55	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 17:04	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402A	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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Analysis Report

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Page 1 of 6

Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421297
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5610 SDG#: DE256-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,300		1
04688	Benzoic acid	65-85-0	170	U 170	500		1
04688	Benzyl alcohol	100-51-6	170	U 170	500		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	33	U 33	170		1
04688	4-Chloroaniline	106-47-8	67	U 67	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	33	U 33	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	330		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	33	U 33	170		1
04688	3,5-Dimethylphenol	108-68-9	33	U 33	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500		1
04688	2,4-Dinitrophenol	51-28-5	330	U 330	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	33	U 33	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	33	U 33	170		1
04688	4-Methylphenol	106-44-5	33	U 33	170		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	33	U 33	170		1
04688	4-Nitroaniline	100-01-6	67	U 67	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	500		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	170	U 170	500		1
04688	Phenol	108-95-2	17	U 17	170		1

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Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421297
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5610 SDG#: DE256-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	33	U 33	170		1
04688	2,4,6-Trichlorophenol	88-06-2	33	U 33	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	1.1	J 0.67	1.7		1
10138	Benzo(a)pyrene	50-32-8	1.5	J 0.67	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	4.5	U 0.67	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	1.4	J 0.67	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.6	J 6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	2.2	U 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	21	U 6.1	18		1
10138	Fluoranthene	206-44-0	3.1	U 0.67	1.7		1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	J 0.67	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.67	U 0.67	1.7		1
10138	Naphthalene	91-20-3	0.74	J 0.67	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	1.5	J 0.67	1.7		1
10138	Pyrene	129-00-0	2.7	U 0.67	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.4	U 1.4	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.2		1
10401	2,4-DB	94-82-6	1.8	U 1.8	1.8		1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2		1
10401	Dinoseb	88-85-7	0.82	U 0.82	2.4		1
10401	2,4-DP (Dichloroprop)	120-36-5	0.82	U 0.82	1.7		1
10401	MCPA	94-74-6	86	U 86	260		1
10401	MCPP (Mecoprop)	93-65-2	77	U 77	260		1
10401	2,4,5-T	93-76-5	0.14	U 0.14	0.17		1
10401	2,4,5-TP	93-72-1	0.78	U 0.077	0.17		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1
01363	Alpha BHC	319-84-6	0.035	U 0.035	0.17		1
01363	Beta BHC	319-85-7	0.079	J 0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.035	U 0.035	0.17		1
01363	Chlordane	57-74-9	2.5	J 0.81	3.5		1

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Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421297
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5610 SDG#: DE256-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35		1
01363	p,p-DDE	72-55-9	0.17 U	0.17	0.35		1
01363	p,p-DDT	50-29-3	0.67 U	0.67	0.67		1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17		1
01363	Dieldrin	60-57-1	0.12 U	0.12	0.35		1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17		1
01363	Endosulfan II	33213-65-9	0.20 U	0.20	0.35		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35		1
01363	Endrin	72-20-8	0.067 U	0.067	0.35		1
01363	Endrin Aldehyde	7421-93-4	0.21 U	0.21	0.35		1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.35		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.050 U	0.050	0.17		1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.35		1
01363	Toxaphene	8001-35-2	3.2 U	3.2	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.3 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	5.0	0.33	1.7	1
10225	PCB-1260	11096-82-5	3.3	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	13,500	6.11	20.2	1
07914	Boron	7440-42-8	9.52	0.364	5.05	1
01650	Calcium	7440-70-2	4,700	2.53	20.2	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421297
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5610 SDG#: DE256-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	21,500	2.64	20.2		1
01656	Lithium	7439-93-2	18.8	0.63	2.0		1
01657	Magnesium	7439-95-4	5,700	0.445	10.1		1
06958	Manganese	7439-96-5	329	0.0364	0.505		1
10145	Phosphorus	7723-14-0	721	0.354	10.1		1
01662	Potassium	7440-09-7	1,470	11.4	50.5		1
01667	Sodium	7440-23-5	98.2 J	6.01	101		1
07968	Strontium	7440-24-6	21.3	0.0253	0.505		1
06969	Tin	7440-31-5	1.01 J	0.323	10.1		1
06970	Titanium	7440-32-6	1,210	0.0697	0.981		1
10146	Zirconium	7440-67-7	11.0	0.465	5.05		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.133 J	0.0719	0.194		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	5.88	0.0777	0.389		2
06126	Barium	7440-39-3	61.2	0.103	0.389		2
06127	Beryllium	7440-41-7	0.418	0.0155	0.0972		2
06128	Cadmium	7440-43-9	0.134	0.0428	0.0972		2
06131	Chromium	7440-47-3	32.7	0.117	0.389		2
06132	Cobalt	7440-48-4	6.29	0.0194	0.0972		2
06133	Copper	7440-50-8	3.69	0.0777	0.389		2
06135	Lead	7439-92-1	9.22	0.0099	0.194		2
06138	Molybdenum	7439-98-7	0.341	0.0486	0.0972		2
06139	Nickel	7440-02-0	9.08	0.0972	0.389		2
06141	Selenium	7782-49-2	0.188 J	0.0564	0.389		2
06142	Silver	7440-22-4	0.0162 J	0.0138	0.0972		2
06145	Thallium	7440-28-0	0.102	0.0292	0.0972		2
06148	Vanadium	7440-62-2	61.6	0.0214	0.0972		2
06149	Zinc	7440-66-6	45.9	0.544	2.92		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0098 J	0.0068	0.0963		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	0.81	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.6		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.86 J	0.20	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421297
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5610 SDG#: DE256-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.48	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	2.0	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	11279SLC026	10/12/2011 22:05	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 08:48	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112780016A	10/07/2011 19:46	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 02:05	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 02:12	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112780016A	10/06/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:30	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421297
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5610 SDG#: DE256-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:32	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:21	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:54	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:54	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:54	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:54	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:05	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201A	10/07/2011 19:15	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203A	10/06/2011 12:18	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 17:18	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201A	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203A	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 6

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421298
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5611 SDG#: DE256-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	68	U 68	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	68	U 68	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1
04688	Phenol	108-95-2	17	U 17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421298
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5611 SDG#: DE256-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.69	U 0.69	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.69	U 0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	2.0	U 0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.69	U 0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.2	U 6.2	19		1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19		1
10138	Chrysene	218-01-9	0.78	J 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7		1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19		1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J 6.2	19		1
10138	Fluoranthene	206-44-0	0.92	J 0.69	1.7		1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7		1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19		1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7		1
10138	Pyrene	129-00-0	0.89	J 0.69	1.7		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7		1
10401	Dalapon	75-99-0	4.5	U 4.5	9.2		1
10401	2,4-DB	94-82-6	100	U 100	100		1
10401	Dicamba	1918-00-9	0.61	J 0.41	1.2		1
10401	Dinoseb	88-85-7	0.82	U 0.82	2.5		1
10401	2,4-DP (Dichlorprop)	120-36-5	1.6	J 0.82	1.7		1
10401	MCPA	94-74-6	870	78	260		1
10401	MCPP (Mecoprop)	93-65-2	99	U 99	260		1
10401	2,4,5-T	93-76-5	0.084	U 0.084	0.17		1
10401	2,4,5-TP	93-72-1	0.090	J 0.077	0.17		1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.							
Reporting limits were raised due to interference from the sample matrix.							
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067	U 0.067	0.17		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421298
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5611 SDG#: DE256-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17		1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17		1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17		1
01363	Chlordane	57-74-9	1.1 J	0.82	3.5		1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35		1
01363	p,p-DDE	72-55-9	0.14 U	0.14	0.35		1
01363	p,p-DDT	50-29-3	0.18 U	0.18	0.35		1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17		1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.35		1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17		1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.35		1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35		1
01363	Endrin	72-20-8	0.067 U	0.067	0.35		1
01363	Endrin Aldehyde	7421-93-4	0.067 U	0.067	0.35		1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.35		1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17		1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17		1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7		1
01363	Mirex	2385-85-5	0.067 U	0.067	0.35		1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.7		1

The sample was injected following maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

The TCX surrogate data associated with the blank is below the client specified limits of 50 -130%; however the recovery is within our in house statistical limits of 28-121%.

The LCS and/or LCSD recoveries are 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 (48-137): Methoxychlor

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.72 J	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 4 of 6

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421298
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5611 SDG#: DE256-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,900	5.98	19.8		1
07914	Boron	7440-42-8	13.6	0.356	4.94		1
01650	Calcium	7440-70-2	14,300	2.47	19.8		1
01654	Iron	7439-89-6	25,900	2.58	19.8		1
01656	Lithium	7439-93-2	24.3	0.61	2.0		1
01657	Magnesium	7439-95-4	6,260	0.435	9.88		1
06958	Manganese	7439-96-5	337	0.0356	0.494		1
10145	Phosphorus	7723-14-0	586	0.346	9.88		1
01662	Potassium	7440-09-7	5,520	11.2	49.4		1
01667	Sodium	7440-23-5	85.8 J	5.88	98.8		1
07968	Strontium	7440-24-6	41.1	0.0247	0.494		1
06969	Tin	7440-31-5	0.592 J	0.316	9.88		1
06970	Titanium	7440-32-6	1,200	0.0708	0.998		1
10146	Zirconium	7440-67-7	4.84 J	0.455	4.94		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.122 J	0.0746	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	4.65	0.0806	0.403		2
06126	Barium	7440-39-3	92.0	0.107	0.403		2
06127	Beryllium	7440-41-7	0.580	0.0161	0.101		2
06128	Cadmium	7440-43-9	0.237	0.0443	0.101		2
06131	Chromium	7440-47-3	29.8	0.121	0.403		2
06132	Cobalt	7440-48-4	8.30	0.0202	0.101		2
06133	Copper	7440-50-8	11.6	0.0806	0.403		2
06135	Lead	7439-92-1	8.57	0.0103	0.202		2
06138	Molybdenum	7439-98-7	0.410	0.0504	0.101		2
06139	Nickel	7440-02-0	14.6	0.101	0.403		2
06141	Selenium	7782-49-2	0.292 J	0.0584	0.403		2
06142	Silver	7440-22-4	0.0234 J	0.0143	0.101		2
06145	Thallium	7440-28-0	0.269	0.0302	0.101		2
06148	Vanadium	7440-62-2	53.6	0.0222	0.101		2
06149	Zinc	7440-66-6	61.1	0.564	3.02		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0877 J	0.0069	0.0977		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.1	0.84	1.0		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.8		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421298
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5611 SDG#: DE256-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.55	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	2.7	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 12:15	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 09:20	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/12/2011 18:10	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112790039A	10/12/2011 02:20	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 02:49	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112790039A	10/07/2011 11:15	Kelli M Barto	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:34	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421298
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5611 SDG#: DE256-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:37	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:25	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:57	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:57	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:57	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:57	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:06	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 20:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 14:13	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 17:33	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 7

Sample Description: SL-103-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421299
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	175 U	175	349		10
Reporting limits were raised due to interference from the sample matrix.							
GC/MS Semivolatiles SW-846 8270C			ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	2-butoxy-Ethanol	111-76-2	1,700	U 1,700	1,700		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	69	U 69	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	69	U 69	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1

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Sample Description: SL-103-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421299
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520		1
04688	Phenol	108-95-2	17	U 17	170		1
04688	2-phenoxy-Ethanol	122-99-6	1,700	U 1,700	1,700		1
04688	Tetralin	119-64-2	170	U 170	170		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.69	U 0.69	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.69	U 0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	2.1	0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.69	U 0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.2	U 6.2	19		1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19		1
10138	Chrysene	218-01-9	0.48	J 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7		1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19		1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	55	6.2	19		1
10138	Fluoranthene	206-44-0	0.69	U 0.69	1.7		1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7		1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19		1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7		1
10138	Pyrene	129-00-0	0.69	U 0.69	1.7		1

GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.1	25.83

HPLC Organics	SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg
04173	20a Formaldehyde 8315A	50-00-0	630	U 630	1,600

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Sample Description: SL-103-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421299
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.5		1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8		1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8		1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8		1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8		1
10225	PCB-1260	11096-82-5	0.47 J	0.41	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.							
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520		1
10501	Isopropanol	67-63-0	100 U	100	520		1
10501	Methanol	67-56-1	100 U	100	520		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10		1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10		1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	0.60 J	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	8.7	0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	24	0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	

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Analysis Report

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Page 4 of 7

Sample Description: SL-103-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421299
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,700	6.22	20.6		1
07914	Boron	7440-42-8	6.93	0.370	5.14		1
01650	Calcium	7440-70-2	5,170	2.57	20.6		1
01654	Iron	7439-89-6	18,300	2.68	20.6		1
01656	Lithium	7439-93-2	23.5	0.64	2.1		1
01657	Magnesium	7439-95-4	4,200	0.452	10.3		1
06958	Manganese	7439-96-5	259	0.0370	0.514		1
10145	Phosphorus	7723-14-0	356	0.360	10.3		1
01662	Potassium	7440-09-7	2,670	11.6	51.4		1
01667	Sodium	7440-23-5	103	6.11	103		1
07968	Strontium	7440-24-6	26.2	0.0257	0.514		1
06969	Tin	7440-31-5	0.840 J	0.329	10.3		1
06970	Titanium	7440-32-6	1,050	0.0730	1.03		1
10146	Zirconium	7440-67-7	1.38 J	0.473	5.14		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0944 J	0.0776	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	3.85	0.0839	0.419		2
06126	Barium	7440-39-3	76.5	0.111	0.419		2
06127	Beryllium	7440-41-7	0.500	0.0168	0.105		2
06128	Cadmium	7440-43-9	0.0906 J	0.0461	0.105		2
06131	Chromium	7440-47-3	15.1	0.126	0.419		2
06132	Cobalt	7440-48-4	4.75	0.0210	0.105		2
06133	Copper	7440-50-8	7.14	0.0839	0.419		2
06135	Lead	7439-92-1	4.80	0.0107	0.210		2
06138	Molybdenum	7439-98-7	0.615	0.0524	0.105		2
06139	Nickel	7440-02-0	9.34	0.105	0.419		2
06141	Selenium	7782-49-2	0.160 J	0.0608	0.419		2
06142	Silver	7440-22-4	0.0234 J	0.0149	0.105		2
06145	Thallium	7440-28-0	0.240	0.0314	0.105		2
06148	Vanadium	7440-62-2	30.5	0.0231	0.105		2
06149	Zinc	7440-66-6	52.9	0.587	3.14		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.101		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.7	0.84	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.7	0.84	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0		1

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Sample Description: SL-103-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421299
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.37	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.6	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-103-SA7-SB-4.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 14:06	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 12:40	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/11/2011 23:06	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 11:39	Laura M Krieger	25.83
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127125677	09/28/2011 17:11	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127125677	09/28/2011 17:12	Lois E Hiltz	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 20:08	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 03:07	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 21:15	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 01:47	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 01:58	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 02:04	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1

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Sample Description: SL-103-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421299
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 01:20	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 07:23	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 08:11	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:01	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:01	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:01	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:01	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:07	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 19:28	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 19:28	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 12:41	Elyse P Brunstetter	1

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Analysis Report

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Page 7 of 7

Sample Description: SL-103-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421299
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 17:47	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 1 of 7

Sample Description: SL-103-SA7-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421300
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	1,170	175	349		10
Reporting limits were raised due to interference from the sample matrix.							
GC/MS Semivolatiles SW-846 8270C			ug/kg	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,700	17	170		1
04688	Acenaphthylene	208-96-8	1,900	17	170		1
04688	Aniline	62-53-3	1,100	170	520		1
04688	Anthracene	120-12-7	1,900	17	170		1
04688	Benzidine	92-87-5	1,900	J 1,200	3,500		1
04688	Benzo(a)anthracene	56-55-3	1,800	17	170		1
04688	Benzo(a)pyrene	50-32-8	1,900	17	170		1
04688	Benzo(b)fluoranthene	205-99-2	2,000	17	170		1
04688	Benzo(g,h,i)perylene	191-24-2	2,000	17	170		1
04688	Benzo(k)fluoranthene	207-08-9	1,900	17	170		1
04688	Benzoic acid	65-85-0	280	J 170	520		1
04688	Benzyl alcohol	100-51-6	1,700	170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	1,900	17	170		1
04688	2-butoxy-Ethanol	111-76-2	1,700	U 1,700	1,700		1
04688	Butylbenzylphthalate	85-68-7	1,800	17	170		1
04688	Di-n-butylphthalate	84-74-2	1,900	17	170		1
04688	Carbazole	86-74-8	1,800	17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	35	170		1
04688	4-Chloroaniline	106-47-8	710	70	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,700	17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,600	17	170		1
04688	2-Chloronaphthalene	91-58-7	1,600	17	170		1
04688	2-Chlorophenol	95-57-8	1,700	17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	35	170		1
04688	Chrysene	218-01-9	1,700	17	170		1
04688	Dibenz(a,h)anthracene	53-70-3	2,000	17	170		1
04688	Dibenzofuran	132-64-9	1,700	17	170		1
04688	1,2-Dichlorobenzene	95-50-1	1,500	17	170		1
04688	1,3-Dichlorobenzene	541-73-1	1,500	17	170		1
04688	1,4-Dichlorobenzene	106-46-7	1,500	17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	930	100	350		1
04688	2,4-Dichlorophenol	120-83-2	1,800	17	170		1
04688	Diethylphthalate	84-66-2	1,800	17	170		1
04688	2,4-Dimethylphenol	105-67-9	1,700	35	170		1
04688	3,5-Dimethylphenol	108-68-9	1,900	35	170		1
04688	Dimethylphthalate	131-11-3	1,800	17	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,100	170	520		1
04688	2,4-Dinitrophenol	51-28-5	1,200	350	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	1,800	35	170		1
04688	2,6-Dinitrotoluene	606-20-2	1,800	17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	1,800	17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,900	17	350		1
04688	Fluoranthene	206-44-0	1,900	17	170		1
04688	Fluorene	86-73-7	1,800	17	170		1
04688	Hexachlorobenzene	118-74-1	1,800	17	170		1

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Sample Description: SL-103-SA7-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421300
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Hexachlorobutadiene	87-68-3	1,600	70	170		1
04688	Hexachlorocyclopentadiene	77-47-4	3,000	170	520		1
04688	Hexachloroethane	67-72-1	1,500	17	170		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	2,000	17	170		1
04688	Isophorone	78-59-1	1,700	17	170		1
04688	1-Methylnaphthalene	90-12-0	1,600	17	170		1
04688	2-Methylnaphthalene	91-57-6	1,700	17	170		1
04688	2-Methylphenol	95-48-7	1,700	35	170		1
04688	4-Methylphenol	106-44-5	1,600	35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	1,600	17	170		1
04688	2-Nitroaniline	88-74-4	1,800	17	170		1
04688	3-Nitroaniline	99-09-2	1,800	35	170		1
04688	4-Nitroaniline	100-01-6	1,300	70	170		1
04688	Nitrobenzene	98-95-3	1,600	17	170		1
04688	2-Nitrophenol	88-75-5	1,700	17	170		1
04688	4-Nitrophenol	100-02-7	1,400	170	520		1
04688	N-Nitrosodimethylamine	62-75-9	1,400	35	170		1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	1,900	17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	2,100	17	170		1
04688	Pentachlorophenol	87-86-5	800	170	520		1
04688	Phenanthrene	85-01-8	1,800	17	170		1
04688	Phenol	108-95-2	1,600	17	170		1
04688	2-phenoxy-Ethanol	122-99-6	1,700	U 1,700	1,700		1
04688	Pyrene	129-00-0	1,800	17	170		1
04688	Tetralin	119-64-2	170	U 170	170		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	35	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	33	0.70	1.7		1
10138	Acenaphthylene	208-96-8	31	0.35	1.7		1
10138	Anthracene	120-12-7	34	0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	35	0.70	1.7		1
10138	Benzo(a)pyrene	50-32-8	37	0.70	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	38	0.70	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	30	0.70	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	37	0.70	1.7		1
10138	Butylbenzylphthalate	85-68-7	40	6.3	19		1

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SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421300
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM							
10138	Di-n-butylphthalate	84-74-2	41	ug/kg	ug/kg	ug/kg	
10138	Chrysene	218-01-9	35	ug/kg	ug/kg	ug/kg	1
10138	Dibenz(a,h)anthracene	53-70-3	32	ug/kg	ug/kg	ug/kg	1
10138	Diethylphthalate	84-66-2	36	ug/kg	ug/kg	ug/kg	1
10138	Dimethylphthalate	131-11-3	35	ug/kg	ug/kg	ug/kg	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	45	ug/kg	ug/kg	ug/kg	1
10138	Fluoranthene	206-44-0	37	ug/kg	ug/kg	ug/kg	1
10138	Fluorene	86-73-7	34	ug/kg	ug/kg	ug/kg	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	32	ug/kg	ug/kg	ug/kg	1
10138	1-Methylnaphthalene	90-12-0	31	ug/kg	ug/kg	ug/kg	1
10138	2-Methylnaphthalene	91-57-6	31	ug/kg	ug/kg	ug/kg	1
10138	Naphthalene	91-20-3	31	ug/kg	ug/kg	ug/kg	1
10138	N-Nitrosodimethylamine	62-75-9	30	ug/kg	ug/kg	ug/kg	1
10138	Di-n-octylphthalate	117-84-0	41	ug/kg	ug/kg	ug/kg	1
10138	Phenanthrene	85-01-8	33	ug/kg	ug/kg	ug/kg	1
10138	Pyrene	129-00-0	35	ug/kg	ug/kg	ug/kg	1
GC Volatiles TPH GRO SW-846 8015B mod							
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	9.4	mg/kg	mg/kg	mg/kg	26.43
HPLC Organics SW-846 8315A							
04173	20a Formaldehyde 8315A	50-00-0	5,600	ug/kg	ug/kg	ug/kg	1
Pesticides/PCBs SW-846 8082							
10225	Aroclor 5432	63496-31-1	1.0 U	ug/kg	ug/kg	ug/kg	1
10225	Aroclor 5442	12642-23-8	1.0 U	ug/kg	ug/kg	ug/kg	1
10225	Aroclor 5460	11126-42-4	1.0 U	ug/kg	ug/kg	ug/kg	1
10225	PCB-1016	12674-11-2	17	ug/kg	ug/kg	ug/kg	1
10225	PCB-1221	11104-28-2	0.35 U	ug/kg	ug/kg	ug/kg	1
10225	PCB-1232	11141-16-5	0.35 U	ug/kg	ug/kg	ug/kg	1
10225	PCB-1242	53469-21-9	0.35 U	ug/kg	ug/kg	ug/kg	1
10225	PCB-1248	12672-29-6	0.35 U	ug/kg	ug/kg	ug/kg	1
10225	PCB-1254	11097-69-1	0.35 U	ug/kg	ug/kg	ug/kg	1
10225	PCB-1260	11096-82-5	18	ug/kg	ug/kg	ug/kg	1
10225	PCB-1262	37324-23-5	0.35 U	ug/kg	ug/kg	ug/kg	1
10225	PCB-1268	11100-14-4	0.35 U	ug/kg	ug/kg	ug/kg	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:							
The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.							
GC Miscellaneous SW-846 8015B							
10501	Ethanol	64-17-5	2,200	ug/kg	ug/kg	ug/kg	1

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SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421300
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Isopropanol	67-63-0	2,600	100	520		1
10501	Methanol	67-56-1	2,600	100	520		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	26	5.2	10		1
08283	Ethylene glycol	107-21-1	100	5.2	10		1
08283	Propylene glycol	57-55-6	110	5.2	10		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	7.8	1.6	3.7		1
10318	o-Terphenyl	84-15-1	8.1	1.6	3.7		1
10318	p-Terphenyl	92-94-4	8.2	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.84 J	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	2.0	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	7.6	0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	19	0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.80 J	0.42	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,400	6.28	20.8		1
07914	Boron	7440-42-8	201	0.374	5.19		1
01650	Calcium	7440-70-2	4,020	2.59	20.8		1
01654	Iron	7439-89-6	17,300	2.71	20.8		1
01656	Lithium	7439-93-2	124	0.64	2.1		1
01657	Magnesium	7439-95-4	4,410	0.457	10.4		1
06958	Manganese	7439-96-5	286	0.0374	0.519		1
10145	Phosphorus	7723-14-0	434	0.363	10.4		1
01662	Potassium	7440-09-7	3,780	11.7	51.9		1
01667	Sodium	7440-23-5	1,020	6.18	104		1
07968	Strontium	7440-24-6	115	0.0259	0.519		1
06969	Tin	7440-31-5	361	0.332	10.4		1
06970	Titanium	7440-32-6	1,260	0.0716	1.01		1
10146	Zirconium	7440-67-7	101	0.477	5.19		1
SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.529	0.0768	0.208		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.98	0.0830	0.415		2
06126	Barium	7440-39-3	88.5	0.110	0.415		2
06127	Beryllium	7440-41-7	1.21	0.0166	0.104		2

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SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421300
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Project Name: SSFL Area IV Collocated Soil Sampling

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Suite 210

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E5612 SDG#: DE256-12MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06128	Cadmium	7440-43-9	1.15	0.0457	0.104		2
06131	Chromium	7440-47-3	24.4	0.125	0.415		2
06132	Cobalt	7440-48-4	53.2	0.0208	0.104		2
06133	Copper	7440-50-8	17.6	0.0830	0.415		2
06135	Lead	7439-92-1	8.00	0.0106	0.208		2
06138	Molybdenum	7439-98-7	10.2	0.0519	0.104		2
06139	Nickel	7440-02-0	20.0	0.104	0.415		2
06141	Selenium	7782-49-2	2.10	0.0602	0.415		2
06142	Silver	7440-22-4	10.2	0.0147	0.104		2
06145	Thallium	7440-28-0	0.656	0.0311	0.104		2
06148	Vanadium	7440-62-2	40.0	0.0228	0.104		2
06149	Zinc	7440-66-6	64.6	0.581	3.11		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.173	0.0071	0.101		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	10.1	0.84	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	10.4	0.84	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	592	9.4	31.4		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	35.8	1.0	5.2		5
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11625	Moisture Content by 160.3	n.a.	4.6	0.50	0.50		1

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-103-SA7-SB-4.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 10:17	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 13:05	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/11/2011 23:38	Gregory J Drahovsky	1

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Sample Description: SL-103-SA7-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421300
LLI Group # 1268676
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Chantilly VA 20151

E5612 SDG#: DE256-12MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 12:12	Laura M Krieger	26.43
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127125677	09/28/2011 17:14	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127125677	09/28/2011 17:15	Lois E Hiltz	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 20:17	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 03:26	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 23:27	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 02:00	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 02:25	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 02:27	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 01:33	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 07:35	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 08:24	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:11	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 7 of 7

Sample Description: SL-103-SA7-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421300
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:11	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:11	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:11	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:09	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 19:53	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 19:53	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 13:50	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 18:01	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 7

Sample Description: SL-103-SA7-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421301
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	874	175	349		10
Reporting limits were raised due to interference from the sample matrix.							
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,700	17	170		1
04688	Acenaphthylene	208-96-8	1,900	17	170		1
04688	Aniline	62-53-3	1,200	170	520		1
04688	Anthracene	120-12-7	1,900	17	170		1
04688	Benzidine	92-87-5	2,200	J 1,200	3,500		1
04688	Benzo(a)anthracene	56-55-3	1,900	17	170		1
04688	Benzo(a)pyrene	50-32-8	2,000	17	170		1
04688	Benzo(b)fluoranthene	205-99-2	1,900	17	170		1
04688	Benzo(g,h,i)perylene	191-24-2	2,000	17	170		1
04688	Benzo(k)fluoranthene	207-08-9	1,800	17	170		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	1,700	170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	1,900	17	170		1
04688	2-butoxy-Ethanol	111-76-2	1,700	U 1,700	1,700		1
04688	Butylbenzylphthalate	85-68-7	1,800	17	170		1
04688	Di-n-butylphthalate	84-74-2	1,900	17	170		1
04688	Carbazole	86-74-8	1,800	17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	35	170		1
04688	4-Chloroaniline	106-47-8	1,100	70	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,700	17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,600	17	170		1
04688	2-Chloronaphthalene	91-58-7	1,600	17	170		1
04688	2-Chlorophenol	95-57-8	1,700	17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	35	170		1
04688	Chrysene	218-01-9	1,700	17	170		1
04688	Dibenz(a,h)anthracene	53-70-3	2,000	17	170		1
04688	Dibenzofuran	132-64-9	1,700	17	170		1
04688	1,2-Dichlorobenzene	95-50-1	1,500	17	170		1
04688	1,3-Dichlorobenzene	541-73-1	1,500	17	170		1
04688	1,4-Dichlorobenzene	106-46-7	1,500	17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	1,400	100	350		1
04688	2,4-Dichlorophenol	120-83-2	1,800	17	170		1
04688	Diethylphthalate	84-66-2	1,800	17	170		1
04688	2,4-Dimethylphenol	105-67-9	1,700	35	170		1
04688	3,5-Dimethylphenol	108-68-9	1,900	35	170		1
04688	Dimethylphthalate	131-11-3	1,800	17	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	800	170	520		1
04688	2,4-Dinitrophenol	51-28-5	700	J 350	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	1,800	35	170		1
04688	2,6-Dinitrotoluene	606-20-2	1,900	17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	1,800	17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	2,000	17	350		1
04688	Fluoranthene	206-44-0	1,900	17	170		1
04688	Fluorene	86-73-7	1,900	17	170		1
04688	Hexachlorobenzene	118-74-1	1,800	17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421301
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Hexachlorobutadiene	87-68-3	1,600	70	170		1
04688	Hexachlorocyclopentadiene	77-47-4	2,600	170	520		1
04688	Hexachloroethane	67-72-1	1,500	17	170		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	2,000	17	170		1
04688	Isophorone	78-59-1	1,700	17	170		1
04688	1-Methylnaphthalene	90-12-0	1,600	17	170		1
04688	2-Methylnaphthalene	91-57-6	1,700	17	170		1
04688	2-Methylphenol	95-48-7	1,800	35	170		1
04688	4-Methylphenol	106-44-5	1,700	35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	1,600	17	170		1
04688	2-Nitroaniline	88-74-4	1,900	17	170		1
04688	3-Nitroaniline	99-09-2	1,800	35	170		1
04688	4-Nitroaniline	100-01-6	1,400	70	170		1
04688	Nitrobenzene	98-95-3	1,700	17	170		1
04688	2-Nitrophenol	88-75-5	1,700	17	170		1
04688	4-Nitrophenol	100-02-7	1,500	170	520		1
04688	N-Nitrosodimethylamine	62-75-9	1,400	35	170		1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	1,800	17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	2,000	17	170		1
04688	Pentachlorophenol	87-86-5	750	170	520		1
04688	Phenanthrene	85-01-8	1,800	17	170		1
04688	Phenol	108-95-2	1,700	17	170		1
04688	2-phenoxy-Ethanol	122-99-6	1,700	U 1,700	1,700		1
04688	Pyrene	129-00-0	1,800	17	170		1
04688	Tetralin	119-64-2	170	U 170	170		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	35	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	32	0.69	1.7		1
10138	Acenaphthylene	208-96-8	32	0.35	1.7		1
10138	Anthracene	120-12-7	33	0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	34	0.69	1.7		1
10138	Benzo(a)pyrene	50-32-8	35	0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	37	0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	27	0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	36	0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	32	6.2	19		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421301
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Di-n-butylphthalate	84-74-2	35	6.2	19		1
10138	Chrysene	218-01-9	33	0.35	1.7		1
10138	Dibenz (a,h) anthracene	53-70-3	28	0.69	1.7		1
10138	Diethylphthalate	84-66-2	33	6.2	19		1
10138	Dimethylphthalate	131-11-3	34	6.2	19		1
10138	Bis (2-Ethylhexyl)phthalate	117-81-7	41	6.2	19		1
10138	Fluoranthene	206-44-0	35	0.69	1.7		1
10138	Fluorene	86-73-7	34	0.69	1.7		1
10138	Indeno (1,2,3-cd) pyrene	193-39-5	28	0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	30	0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	30	0.69	1.7		1
10138	Naphthalene	91-20-3	30	0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	96	0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	36	6.2	19		1
10138	Phenanthrene	85-01-8	32	0.69	1.7		1
10138	Pyrene	129-00-0	34	0.69	1.7		1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	8.6	0.2	1.0		24.18
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	5,700	630	1,600		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.5		1
10225	PCB-1016	12674-11-2	22	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8		1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8		1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8		1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8		1
10225	PCB-1260	11096-82-5	22	0.41	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.							
GC Miscellaneous	SW-846 8015B		ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	2,400	100	520		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421301
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Isopropanol	67-63-0	2,400	100	520		1
10501	Methanol	67-56-1	2,400	100	520		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	35	5.2	10		1
08283	Ethylene glycol	107-21-1	110	5.2	10		1
08283	Propylene glycol	57-55-6	120	5.2	10		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	8.3	1.6	3.7		1
10318	o-Terphenyl	84-15-1	8.7	1.6	3.7		1
10318	p-Terphenyl	92-94-4	8.6	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.88 J	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	1.8	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	9.4	0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	18	0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.75 J	0.42	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,700	6.16	20.4		1
07914	Boron	7440-42-8	203	0.366	5.09		1
01650	Calcium	7440-70-2	4,570	2.54	20.4		1
01654	Iron	7439-89-6	19,100	2.66	20.4		1
01656	Lithium	7439-93-2	126	0.63	2.0		1
01657	Magnesium	7439-95-4	4,770	0.448	10.2		1
06958	Manganese	7439-96-5	308	0.0366	0.509		1
10145	Phosphorus	7723-14-0	449	0.356	10.2		1
01662	Potassium	7440-09-7	3,940	11.5	50.9		1
01667	Sodium	7440-23-5	1,040	6.06	102		1
07968	Strontium	7440-24-6	118	0.0254	0.509		1
06969	Tin	7440-31-5	360	0.326	10.2		1
06970	Titanium	7440-32-6	1,290	0.0737	1.04		1
10146	Zirconium	7440-67-7	101	0.468	5.09		1
SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.460	0.0746	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	5.97	0.0806	0.403		2
06126	Barium	7440-39-3	92.1	0.107	0.403		2
06127	Beryllium	7440-41-7	1.19	0.0161	0.101		2

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421301
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06128	Cadmium	7440-43-9	1.08	0.0443	0.101		2
06131	Chromium	7440-47-3	23.5	0.121	0.403		2
06132	Cobalt	7440-48-4	51.1	0.0202	0.101		2
06133	Copper	7440-50-8	16.1	0.0806	0.403		2
06135	Lead	7439-92-1	7.67	0.0103	0.202		2
06138	Molybdenum	7439-98-7	9.85	0.0504	0.101		2
06139	Nickel	7440-02-0	18.7	0.101	0.403		2
06141	Selenium	7782-49-2	2.10	0.0585	0.403		2
06142	Silver	7440-22-4	9.79	0.0143	0.101		2
06145	Thallium	7440-28-0	0.615	0.0302	0.101		2
06148	Vanadium	7440-62-2	39.4	0.0222	0.101		2
06149	Zinc	7440-66-6	61.3	0.564	3.02		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.173	0.0073	0.104		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11625	Moisture Content by 160.3	n.a.	4.6	0.50	0.50		1

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-103-SA7-SB-4.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011	10:36	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011	13:30	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011	00:11	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011	17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011	23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011	23:15	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011	12:48	Laura M Krieger	24.18
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127125677	09/28/2011	17:16	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127125677	09/28/2011	17:17	Lois E Hiltz	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011	20:27	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011	03:45	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011	11:15	Kelli M Barto	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

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Sample Description: SL-103-SA7-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421301
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 23:43	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 02:13	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 02:52	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 02:51	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 01:37	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 07:39	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 08:28	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:14	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:14	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:14	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:14	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:10	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-103-SA7-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421301
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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Analysis Report

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Page 1 of 3

Sample Description: SL-103-SA7-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421302
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,400	6.28	20.8		1
07914	Boron	7440-42-8	6.55	0.374	5.19		1
01650	Calcium	7440-70-2	3,500	2.59	20.8		1
01654	Iron	7439-89-6	18,700	2.71	20.8		1
01656	Lithium	7439-93-2	25.1	0.64	2.1		1
01657	Magnesium	7439-95-4	4,440	0.457	10.4		1
06958	Manganese	7439-96-5	248	0.0374	0.519		1
10145	Phosphorus	7723-14-0	329	0.363	10.4		1
01662	Potassium	7440-09-7	2,870	11.7	51.9		1
01667	Sodium	7440-23-5	95.9 J	6.18	104		1
07968	Strontium	7440-24-6	16.2	0.0259	0.519		1
06969	Tin	7440-31-5	0.788 J	0.332	10.4		1
06970	Titanium	7440-32-6	1,070	0.0730	1.03		1
10146	Zirconium	7440-67-7	2.12 J	0.477	5.19		1
SW-846 6020							
			mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0760 U	0.0760	0.206		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	3.78	0.0822	0.411		2
06126	Barium	7440-39-3	80.0	0.109	0.411		2
06127	Beryllium	7440-41-7	0.469	0.0164	0.103		2
06128	Cadmium	7440-43-9	0.0789 J	0.0452	0.103		2
06131	Chromium	7440-47-3	14.1	0.123	0.411		2
06132	Cobalt	7440-48-4	4.82	0.0206	0.103		2
06133	Copper	7440-50-8	6.77	0.0822	0.411		2
06135	Lead	7439-92-1	4.50	0.0105	0.206		2
06138	Molybdenum	7439-98-7	0.420	0.0514	0.103		2
06139	Nickel	7440-02-0	9.16	0.103	0.411		2
06141	Selenium	7782-49-2	0.105 J	0.0596	0.411		2
06142	Silver	7440-22-4	0.0240 J	0.0146	0.103		2
06145	Thallium	7440-28-0	0.223	0.0308	0.103		2
06148	Vanadium	7440-62-2	29.1	0.0226	0.103		2
06149	Zinc	7440-66-6	55.2	0.575	3.08		2
SW-846 7471A							
			mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.103		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.5	0.84	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.3 J	0.84	1.6		1
EPA 314.0							
			ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4		1
SW-846 7199							
			mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.65 J	0.21	1.0		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421302
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.47	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	4.8	0.50	0.50		1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.							
11625	Moisture Content by 160.3	n.a.	4.6	0.50	0.50		1

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-103-SA7-SB-9.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 01:29	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 07:31	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 08:20	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 22:08	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 22:08	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421302
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/28/2011 09:00

Suite 210

Reported: 10/26/2011 13:44

Chantilly VA 20151

E5612 SDG#: DE256-12DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 22:08	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 22:08	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:08	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 19:41	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 19:41	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 13:04	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 18:38	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 1 of 2

Sample Description: SL-103-SA7-SB-4.0-5.0RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421303
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.5		1
10225	PCB-1016	12674-11-2	2.4	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8		1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8		1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8		1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8		1
10225	PCB-1260	11096-82-5	2.7	0.41	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	540	100	520		1
10501	Isopropanol	67-63-0	580	100	520		1
10501	Methanol	67-56-1	620	100	520		1
The sample was analyzed outside the client specified 7 day hold time; however it was analyzed within the method hold time of 14 days. Since this sample was used as the reporting limit matrix spike, there would be no impact to the data.							
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.7 J	1.6	3.7		1
10318	o-Terphenyl	84-15-1	1.7 J	1.6	3.7		1
10318	p-Terphenyl	92-94-4	1.7 J	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	1.1 J	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	6.1	0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	14	0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11625	Moisture Content by 160.3	n.a.	4.6	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.

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

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Sample Description: SL-103-SA7-SB-4.0-5.0RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421303
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12RLR

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 05:17	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/05/2011 00:00	Elizabeth J Marin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 03:19	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/11/2011 18:07	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-103-SA7-SB-4.0-5.0RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421304
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3		1
10225	PCB-1016	12674-11-2	1.9	0.33	1.7		1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7		1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7		1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7		1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7		1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7		1
10225	PCB-1260	11096-82-5	2.2	0.39	1.7		1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7		1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	560	100	500		1
10501	Isopropanol	67-63-0	570	100	500		1
10501	Methanol	67-56-1	630	100	500		1
The sample was analyzed outside the client specified 7 day hold time; however it was analyzed within the method hold time of 14 days. Since this sample was used as the reporting limit laboratory control spike, there would be no impact to the data.							
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.5 J	1.5	3.5		1
10318	o-Terphenyl	84-15-1	1.7 J	1.5	3.5		1
10318	p-Terphenyl	92-94-4	1.5 J	1.5	3.5		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.43 J	0.40	1.2		1
10199	EFH (C15-C20)	n.a.	0.72 J	0.40	1.2		1
10199	EFH (C21-C30)	n.a.	1.2 J	0.40	1.2		1
10199	EFH (C30 - C40)	n.a.	1.8	0.40	1.2		1
10199	EFH (C8-C11)	n.a.	0.40 U	0.40	1.2		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

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

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Sample Description: SL-103-SA7-SB-4.0-5.0RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-4.0-5.0

LLI Sample # SW 6421304
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5612 SDG#: DE256-12RLQ

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 05:36	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/05/2011 00:16	Elizabeth J Marin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 03:47	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/08/2011 19:42	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-103-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-9.0-10.0

LLI Sample # SW 6421305
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:55

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5613 SDG#: DE256-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	182 U	182	364		10
Reporting limits were raised due to interference from the sample matrix.							
GC/MS Semivolatiles SW-846 8270C			ug/kg	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	2-butoxy-Ethanol	111-76-2	1,800	U 1,800	1,800		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-9.0-10.0

LLI Sample # SW 6421305
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:55

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5613 SDG#: DE256-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	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
04688	2-phenoxy-Ethanol	122-99-6	1,800	U 1,800	1,800		1
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	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	ug/kg	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.72	U 0.72	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.72	U 0.72	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.91	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	6.5	U 6.5	20		1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	20		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.72	U 0.72	1.8		1
10138	Diethylphthalate	84-66-2	6.5	U 6.5	20		1
10138	Dimethylphthalate	131-11-3	6.5	U 6.5	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5	U 6.5	20		1
10138	Fluoranthene	206-44-0	0.72	U 0.72	1.8		1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8		1
10138	Naphthalene	91-20-3	0.72	U 0.72	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.5	U 6.5	20		1
10138	Phenanthrene	85-01-8	0.72	U 0.72	1.8		1
10138	Pyrene	129-00-0	0.72	U 0.72	1.8		1

GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1	22.69

HPLC Organics	SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg
04173	20a Formaldehyde 8315A	50-00-0	650	U 650	1,600

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-9.0-10.0

LLI Sample # SW 6421305
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:55

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

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 13:44

E5613 SDG#: DE256-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9		1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9		1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9		1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9		1
10225	PCB-1260	11096-82-5	6.2	0.42	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
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	550		1
10501	Isopropanol	67-63-0	110 U	110	550		1
10501	Methanol	67-56-1	110 U	110	550		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.5 U	5.5	11		1
08283	Ethylene glycol	107-21-1	5.5 U	5.5	11		1
08283	Propylene glycol	57-55-6	5.5 U	5.5	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.8		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.44 U	0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.44 J	0.44	1.3		1
10199	EFH (C21-C30)	n.a.	6.7	0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	22	0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44 U	0.44	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,400	6.41	21.2		1
07914	Boron	7440-42-8	6.55	0.381	5.29		1
01650	Calcium	7440-70-2	3,320	2.65	21.2		1
01654	Iron	7439-89-6	18,900	2.76	21.2		1
01656	Lithium	7439-93-2	25.3	0.66	2.1		1
01657	Magnesium	7439-95-4	4,600	0.466	10.6		1
06958	Manganese	7439-96-5	256	0.0381	0.529		1
10145	Phosphorus	7723-14-0	327	0.371	10.6		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-9.0-10.0

LLI Sample # SW 6421305
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:55

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5613 SDG#: DE256-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,810	12.0	52.9		1
01667	Sodium	7440-23-5	149	6.30	106		1
07968	Strontium	7440-24-6	14.7	0.0265	0.529		1
06969	Tin	7440-31-5	0.721 J	0.339	10.6		1
06970	Titanium	7440-32-6	1,150	0.0759	1.07		1
10146	Zirconium	7440-67-7	0.905 J	0.487	5.29		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0807 U	0.0807	0.218		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	3.83	0.0872	0.436		2
06126	Barium	7440-39-3	73.8	0.116	0.436		2
06127	Beryllium	7440-41-7	0.475	0.0174	0.109		2
06128	Cadmium	7440-43-9	0.0962 J	0.0480	0.109		2
06131	Chromium	7440-47-3	14.1	0.131	0.436		2
06132	Cobalt	7440-48-4	4.55	0.0218	0.109		2
06133	Copper	7440-50-8	6.71	0.0872	0.436		2
06135	Lead	7439-92-1	4.34	0.0111	0.218		2
06138	Molybdenum	7439-98-7	0.344	0.0545	0.109		2
06139	Nickel	7440-02-0	8.78	0.109	0.436		2
06141	Selenium	7782-49-2	0.113 J	0.0632	0.436		2
06142	Silver	7440-22-4	0.0182 J	0.0155	0.109		2
06145	Thallium	7440-28-0	0.233	0.0327	0.109		2
06148	Vanadium	7440-62-2	29.2	0.0240	0.109		2
06149	Zinc	7440-66-6	61.4	0.611	3.27		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.102		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.0	0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.0	0.88	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.7		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.51	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.3	0.50	0.50		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-103-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-9.0-10.0

LLI Sample # SW 6421305
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:55

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5613 SDG#: DE256-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-103-SA7-SB-9.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 10:55	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 13:55	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 09:52	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 13:24	Laura M Krieger	22.69
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127125677	09/28/2011 17:19	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127125677	09/28/2011 17:20	Lois E Hiltz	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 20:36	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 05:54	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 21:32	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 02:25	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 04:41	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/08/2011 22:53	Heather E Williams	1
11238	EPH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:46	John W Yanzuk II	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-103-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-9.0-10.0

LLI Sample # SW 6421305
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:55

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5613 SDG#: DE256-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:41	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:38	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 23:00	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 23:00	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 23:00	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 23:00	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:12	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 20:19	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 20:19	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 14:37	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 18:59	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-103-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-9.0-10.0

LLI Sample # SW 6421305
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:55

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5613 SDG#: DE256-13

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	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401B	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-104-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-4.0-5.0

LLI Sample # SW 6421306
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5614 SDG#: DE256-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	17.4 U	17.4	34.8		1
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	2-butoxy-Ethanol	111-76-2	1,700	U 1,700	1,700		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	69	U 69	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	69	U 69	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-104-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-4.0-5.0

LLI Sample # SW 6421306
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5614 SDG#: DE256-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520		1
04688	Phenol	108-95-2	17	U 17	170		1
04688	2-phenoxy-Ethanol	122-99-6	1,700	U 1,700	1,700		1
04688	Tetralin	119-64-2	170	U 170	170		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.69	U 0.69	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.75	J 0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	1.2	J 0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.69	U 0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.2	U 6.2	19		1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19		1
10138	Chrysene	218-01-9	0.76	J 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7		1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19		1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.3	J 6.2	19		1
10138	Fluoranthene	206-44-0	0.69	U 0.69	1.7		1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7		1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19		1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7		1
10138	Pyrene	129-00-0	0.98	J 0.69	1.7		1
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde	8315A 50-00-0	630	U 630	1,600		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0	U 1.0	3.4		1
10225	Aroclor 5442	12642-23-8	1.0	U 1.0	3.4		1
10225	Aroclor 5460	11126-42-4	1.0	U 1.0	3.4		1
10225	PCB-1016	12674-11-2	0.34	U 0.34	1.8		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 3 of 6

Sample Description: SL-104-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-4.0-5.0

LLI Sample # SW 6421306
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5614 SDG#: DE256-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8		1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8		1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8		1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8		1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8		1
10225	PCB-1260	11096-82-5	0.90 J	0.40	1.8		1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8		1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520		1
10501	Isopropanol	67-63-0	100 U	100	520		1
10501	Methanol	67-56-1	100 U	100	520		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10		1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10		1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.6		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.6		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.6		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	0.53 J	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	6.1	0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	20	0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,300	6.14	20.3		1
07914	Boron	7440-42-8	6.29	0.365	5.07		1
01650	Calcium	7440-70-2	3,870	2.54	20.3		1
01654	Iron	7439-89-6	18,200	2.65	20.3		1
01656	Lithium	7439-93-2	24.6	0.63	2.0		1
01657	Magnesium	7439-95-4	4,410	0.446	10.1		1
06958	Manganese	7439-96-5	258	0.0365	0.507		1
10145	Phosphorus	7723-14-0	324	0.355	10.1		1
01662	Potassium	7440-09-7	2,790	11.5	50.7		1
01667	Sodium	7440-23-5	82.2 J	6.04	101		1
07968	Strontium	7440-24-6	17.4	0.0254	0.507		1
06969	Tin	7440-31-5	0.751 J	0.325	10.1		1

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

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Analysis Report

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Page 4 of 6

Sample Description: SL-104-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-4.0-5.0

LLI Sample # SW 6421306
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5614 SDG#: DE256-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
06970	Titanium	7440-32-6	997	0.0735	1.03		1
10146	Zirconium	7440-67-7	1.40 J	0.467	5.07		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0751 U	0.0751	0.203		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	3.87	0.0812	0.406		2
06126	Barium	7440-39-3	77.1	0.108	0.406		2
06127	Beryllium	7440-41-7	0.476	0.0162	0.101		2
06128	Cadmium	7440-43-9	0.0978 J	0.0446	0.101		2
06131	Chromium	7440-47-3	14.8	0.122	0.406		2
06132	Cobalt	7440-48-4	4.49	0.0203	0.101		2
06133	Copper	7440-50-8	6.59	0.0812	0.406		2
06135	Lead	7439-92-1	4.47	0.0103	0.203		2
06138	Molybdenum	7439-98-7	0.367	0.0507	0.101		2
06139	Nickel	7440-02-0	9.02	0.101	0.406		2
06141	Selenium	7782-49-2	0.135 J	0.0588	0.406		2
06142	Silver	7440-22-4	0.0200 J	0.0144	0.101		2
06145	Thallium	7440-28-0	0.255	0.0304	0.101		2
06148	Vanadium	7440-62-2	30.5	0.0223	0.101		2
06149	Zinc	7440-66-6	51.8	0.568	3.04		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0976		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.84	1.0		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	0.84 U	0.84	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	4.4	0.21	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.32	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.3	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.							

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-104-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-4.0-5.0

LLI Sample # SW 6421306
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5614 SDG#: DE256-14

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
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/10/2011 16:46	Matthew S Woods	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 14:20	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 10:25	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 20:55	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 06:13	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 21:48	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 02:38	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 05:09	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 03:15	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:51	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:52	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:42	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-104-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-4.0-5.0

LLI Sample # SW 6421306
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5614 SDG#: DE256-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 23:10	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 23:10	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 23:10	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 23:10	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:13	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 20:31	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 20:31	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 15:00	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 19:28	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401B	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 6

Sample Description: SL-104-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-9.0-10.0

LLI Sample # SW 6421307
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5615 SDG#: DE256-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	177 U	177	354		10
Reporting limits were raised due to interference from the sample matrix.							
GC/MS Semivolatiles SW-846 8270C			ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	2-butoxy-Ethanol	111-76-2	1,800	U 1,800	1,800		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170		1
04688	4-Chloroaniline	106-47-8	70	U 70	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	35	U 35	170		1
04688	4-Methylphenol	106-44-5	35	U 35	170		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	35	U 35	170		1
04688	4-Nitroaniline	100-01-6	70	U 70	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-104-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-9.0-10.0

LLI Sample # SW 6421307
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5615 SDG#: DE256-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520		1
04688	Phenol	108-95-2	17	U 17	170		1
04688	2-phenoxy-Ethanol	122-99-6	1,800	U 1,800	1,800		1
04688	Tetralin	119-64-2	170	U 170	170		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70	U 0.70	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.70	U 0.70	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.70	U 0.70	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	0.72	J 0.70	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.70	U 0.70	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.70	U 0.70	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.3	U 6.3	19		1
10138	Di-n-butylphthalate	84-74-2	6.3	U 6.3	19		1
10138	Chrysene	218-01-9	0.35	U 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.70	U 0.70	1.7		1
10138	Diethylphthalate	84-66-2	6.3	U 6.3	19		1
10138	Dimethylphthalate	131-11-3	6.3	U 6.3	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.3	U 6.3	19		1
10138	Fluoranthene	206-44-0	0.70	U 0.70	1.7		1
10138	Fluorene	86-73-7	0.70	U 0.70	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70	U 0.70	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.70	U 0.70	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.70	U 0.70	1.7		1
10138	Naphthalene	91-20-3	0.70	U 0.70	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.70	U 0.70	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.3	U 6.3	19		1
10138	Phenanthrene	85-01-8	0.70	U 0.70	1.7		1
10138	Pyrene	129-00-0	0.70	U 0.70	1.7		1
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde	8315A 50-00-0	640	U 640	1,600		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.5		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

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-104-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-9.0-10.0

LLI Sample # SW 6421307
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5615 SDG#: DE256-15

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	ug/kg	
10225	PCB-1221	11104-28-2	0.35	U	0.35	1.8		1
10225	PCB-1232	11141-16-5	0.35	U	0.35	1.8		1
10225	PCB-1242	53469-21-9	0.35	U	0.35	1.8		1
10225	PCB-1248	12672-29-6	0.35	U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35	U	0.35	1.8		1
10225	PCB-1260	11096-82-5	0.47	J	0.41	1.8		1
10225	PCB-1262	37324-23-5	0.35	U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35	U	0.35	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110	U	110	530		1
10501	Isopropanol	67-63-0	110	U	110	530		1
10501	Methanol	67-56-1	110	U	110	530		1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.3	U	5.3	11		1
08283	Ethylene glycol	107-21-1	5.3	U	5.3	11		1
08283	Propylene glycol	57-55-6	5.3	U	5.3	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42	U	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	0.42	U	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	2.4		0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	5.9		0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.42	U	0.42	1.3		1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,500		6.42	21.2		1
07914	Boron	7440-42-8	6.58		0.382	5.31		1
01650	Calcium	7440-70-2	4,070		2.65	21.2		1
01654	Iron	7439-89-6	18,300		2.77	21.2		1
01656	Lithium	7439-93-2	22.9		0.66	2.1		1
01657	Magnesium	7439-95-4	4,150		0.467	10.6		1
06958	Manganese	7439-96-5	245		0.0382	0.531		1
10145	Phosphorus	7723-14-0	315		0.372	10.6		1
01662	Potassium	7440-09-7	2,550		12.0	53.1		1
01667	Sodium	7440-23-5	150		6.32	106		1
07968	Strontium	7440-24-6	18.2		0.0265	0.531		1
06969	Tin	7440-31-5	0.916	J	0.340	10.6		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-104-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-9.0-10.0

LLI Sample # SW 6421307
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:45

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

Submitted: 09/28/2011 09:00

Reported: 10/26/2011 13:44

E5615 SDG#: DE256-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
06970	Titanium	7440-32-6	997	0.0746	1.05		1
10146	Zirconium	7440-67-7	1.06 J	0.488	5.31		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0778 U	0.0778	0.210		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.12	0.0841	0.420		2
06126	Barium	7440-39-3	74.3	0.111	0.420		2
06127	Beryllium	7440-41-7	0.495	0.0168	0.105		2
06128	Cadmium	7440-43-9	0.102 J	0.0462	0.105		2
06131	Chromium	7440-47-3	13.8	0.126	0.420		2
06132	Cobalt	7440-48-4	4.47	0.0210	0.105		2
06133	Copper	7440-50-8	6.36	0.0841	0.420		2
06135	Lead	7439-92-1	5.33	0.0107	0.210		2
06138	Molybdenum	7439-98-7	0.343	0.0526	0.105		2
06139	Nickel	7440-02-0	8.64	0.105	0.420		2
06141	Selenium	7782-49-2	0.101 J	0.0610	0.420		2
06142	Silver	7440-22-4	0.0221 J	0.0149	0.105		2
06145	Thallium	7440-28-0	0.262	0.0315	0.105		2
06148	Vanadium	7440-62-2	28.3	0.0231	0.105		2
06149	Zinc	7440-66-6	62.1	0.589	3.15		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.103		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.3	0.86	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.8	0.86	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	31.8		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	4.3	0.21	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.07	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	5.8	0.50	0.50		1
"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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Analysis Report

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

Page 5 of 6

Sample Description: SL-104-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-9.0-10.0

LLI Sample # SW 6421307
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5615 SDG#: DE256-15

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
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 11:14	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 14:46	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 10:57	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 21:05	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 06:50	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 22:05	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 02:51	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 05:36	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/11/2011 17:43	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:55	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 08:56	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:46	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-104-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA7-SB-9.0-10.0

LLI Sample # SW 6421307
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5615 SDG#: DE256-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 23:13	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 23:13	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 23:13	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 23:13	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:14	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 21:09	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 21:09	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 15:23	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 19:50	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401B	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 7

Sample Description: SL-105-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-105-SA7-SB-4.0-5.0

LLI Sample # SW 6421308
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5616 SDG#: DE256-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	17.2 U	17.2	34.4		1
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	2-butoxy-Ethanol	111-76-2	1,700	U 1,700	1,700		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	68	U 68	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	68	U 68	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-105-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-105-SA7-SB-4.0-5.0

LLI Sample # SW 6421308
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5616 SDG#: DE256-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1
04688	Phenol	108-95-2	17	U 17	170		1
04688	2-phenoxy-Ethanol	122-99-6	1,700	U 1,700	1,700		1
04688	Tetralin	119-64-2	170	U 170	170		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.69	U 0.69	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.69	U 0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	2.1	0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.87	J 0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.2	U 6.2	19		1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19		1
10138	Chrysene	218-01-9	1.5	J 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7		1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19		1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2	U 6.2	19		1
10138	Fluoranthene	206-44-0	0.69	U 0.69	1.7		1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7		1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19		1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7		1
10138	Pyrene	129-00-0	0.69	U 0.69	1.7		1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.1		26.32
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	620	U 620	1,500		1

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Analysis Report

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Page 3 of 7

Sample Description: SL-105-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-105-SA7-SB-4.0-5.0

LLI Sample # SW 6421308
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5616 SDG#: DE256-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4		1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7		1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7		1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7		1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7		1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7		1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7		1
10225	PCB-1260	11096-82-5	0.75 J	0.40	1.7		1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7		1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520		1
10501	Isopropanol	67-63-0	100 U	100	520		1
10501	Methanol	67-56-1	100 U	100	520		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10		1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10		1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.5 U	1.5	3.6		1
10318	o-Terphenyl	84-15-1	1.5 U	1.5	3.6		1
10318	p-Terphenyl	92-94-4	1.5 U	1.5	3.6		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.41 U	0.41	1.2		1
10199	EFH (C15-C20)	n.a.	0.45 J	0.41	1.2		1
10199	EFH (C21-C30)	n.a.	6.6	0.41	1.2		1
10199	EFH (C30 - C40)	n.a.	22	0.41	1.2		1
10199	EFH (C8-C11)	n.a.	0.41 U	0.41	1.2		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,200	6.19	20.5		1
07914	Boron	7440-42-8	6.25	0.368	5.11		1
01650	Calcium	7440-70-2	3,260	2.56	20.5		1
01654	Iron	7439-89-6	17,700	2.67	20.5		1
01656	Lithium	7439-93-2	23.9	0.63	2.0		1
01657	Magnesium	7439-95-4	4,190	0.450	10.2		1
06958	Manganese	7439-96-5	243	0.0368	0.511		1
10145	Phosphorus	7723-14-0	354	0.358	10.2		1

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

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Sample Description: SL-105-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-105-SA7-SB-4.0-5.0

LLI Sample # SW 6421308
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5616 SDG#: DE256-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,680	11.6	51.1		1
01667	Sodium	7440-23-5	71.3 J	6.09	102		1
07968	Strontium	7440-24-6	14.1	0.0256	0.511		1
06969	Tin	7440-31-5	1.02 J	0.327	10.2		1
06970	Titanium	7440-32-6	1,100	0.0712	1.00		1
10146	Zirconium	7440-67-7	0.965 J	0.471	5.11		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0764 U	0.0764	0.207		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	3.58	0.0826	0.413		2
06126	Barium	7440-39-3	71.9	0.110	0.413		2
06127	Beryllium	7440-41-7	0.430	0.0165	0.103		2
06128	Cadmium	7440-43-9	0.0921 J	0.0455	0.103		2
06131	Chromium	7440-47-3	13.9	0.124	0.413		2
06132	Cobalt	7440-48-4	4.56	0.0207	0.103		2
06133	Copper	7440-50-8	6.28	0.0826	0.413		2
06135	Lead	7439-92-1	4.27	0.0105	0.207		2
06138	Molybdenum	7439-98-7	0.357	0.0517	0.103		2
06139	Nickel	7440-02-0	8.62	0.103	0.413		2
06141	Selenium	7782-49-2	0.142 J	0.0599	0.413		2
06142	Silver	7440-22-4	0.0154 J	0.0147	0.103		2
06145	Thallium	7440-28-0	0.236	0.0310	0.103		2
06148	Vanadium	7440-62-2	28.6	0.0227	0.103		2
06149	Zinc	7440-66-6	51.0	0.579	3.10		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0067 U	0.0067	0.0956		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.9	0.81	1.0		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	0.96 J	0.81	1.5		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.0		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	4.4	0.21	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.27	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	3.2	0.50	0.50		1

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

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Sample Description: SL-105-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-105-SA7-SB-4.0-5.0

LLI Sample # SW 6421308
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5616 SDG#: DE256-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-105-SA7-SB-4.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/10/2011 17:25	Matthew S Woods	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 15:11	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 11:29	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 13:57	Laura M Krieger	26.32
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127125677	09/28/2011 17:24	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127125677	09/28/2011 17:25	Lois E Hiltz	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 21:15	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 07:09	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 22:21	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 03:04	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 06:03	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/08/2011 23:17	Heather E Williams	1
11238	EPH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 02:59	John W Yanzuk II	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

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Sample Description: SL-105-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-105-SA7-SB-4.0-5.0

LLI Sample # SW 6421308
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5616 SDG#: DE256-16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 09:00	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:50	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 23:16	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 23:16	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 23:16	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 23:16	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 21:22	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 21:22	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 15:46	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 20:04	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1

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Analysis Report

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Sample Description: SL-105-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-105-SA7-SB-4.0-5.0

LLI Sample # SW 6421308
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5616 SDG#: DE256-16

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	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401B	10/05/2011 19:53	Scott W Freisher	1

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Analysis Report

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

Page 1 of 7

Sample Description: SL-172-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-4.0-5.0

LLI Sample # SW 6421309
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5617 SDG#: DE256-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	181 U	181	362		10
Reporting limits were raised due to interference from the sample matrix.							
GC/MS Semivolatiles SW-846 8270C			ug/kg	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	2-butoxy-Ethanol	111-76-2	1,800	U 1,800	1,800		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1

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Sample Description: SL-172-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-4.0-5.0

LLI Sample # SW 6421309
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5617 SDG#: DE256-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	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
04688	2-phenoxy-Ethanol	122-99-6	1,800	U 1,800	1,800		1
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	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	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	1.2	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	0.50	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	6.4	U 6.4	19		1
10138	Fluoranthene	206-44-0	0.72	U 0.72	1.8		1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8		1
10138	Naphthalene	91-20-3	0.72	U 0.72	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19		1
10138	Phenanthrene	85-01-8	0.72	U 0.72	1.8		1
10138	Pyrene	129-00-0	0.72	U 0.72	1.8		1

GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.1	24.27

HPLC Organics	SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg
04173	20a Formaldehyde 8315A	50-00-0	650	U 650	1,600

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Sample Description: SL-172-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-4.0-5.0

LLI Sample # SW 6421309
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5617 SDG#: DE256-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8		1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8		1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8		1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8		1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8		1
10225	PCB-1260	11096-82-5	0.76 J	0.42	1.8		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	540		1
10501	Isopropanol	67-63-0	110 U	110	540		1
10501	Methanol	67-56-1	110 U	110	540		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4 U	5.4	11		1
08283	Ethylene glycol	107-21-1	5.4 U	5.4	11		1
08283	Propylene glycol	57-55-6	5.4 U	5.4	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.8		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	4.3 U	4.3	13		10
10199	EFH (C15-C20)	n.a.	4.3 U	4.3	13		10
10199	EFH (C21-C30)	n.a.	33	4.3	13		10
10199	EFH (C30 - C40)	n.a.	130	4.3	13		10
10199	EFH (C8-C11)	n.a.	4.3 U	4.3	13		10
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,500	6.31	20.9		1
07914	Boron	7440-42-8	6.33	0.375	5.21		1
01650	Calcium	7440-70-2	7,950	2.61	20.9		1
01654	Iron	7439-89-6	15,700	2.72	20.9		1
01656	Lithium	7439-93-2	16.6	0.65	2.1		1
01657	Magnesium	7439-95-4	3,780	0.459	10.4		1
06958	Manganese	7439-96-5	206	0.0375	0.521		1
10145	Phosphorus	7723-14-0	371	0.365	10.4		1

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Sample Description: SL-172-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-4.0-5.0

LLI Sample # SW 6421309
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5617 SDG#: DE256-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,110	11.8	52.1		1
01667	Sodium	7440-23-5	185	6.21	104		1
07968	Strontium	7440-24-6	43.5	0.0261	0.521		1
06969	Tin	7440-31-5	0.895 J	0.334	10.4		1
06970	Titanium	7440-32-6	1,030	0.0755	1.06		1
10146	Zirconium	7440-67-7	1.55 J	0.480	5.21		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.377	0.0795	0.215		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.33	0.0859	0.430		2
06126	Barium	7440-39-3	75.5	0.114	0.430		2
06127	Beryllium	7440-41-7	0.450	0.0172	0.107		2
06128	Cadmium	7440-43-9	0.155	0.0472	0.107		2
06131	Chromium	7440-47-3	14.0	0.129	0.430		2
06132	Cobalt	7440-48-4	4.59	0.0215	0.107		2
06133	Copper	7440-50-8	7.62	0.0859	0.430		2
06135	Lead	7439-92-1	5.08	0.0110	0.215		2
06138	Molybdenum	7439-98-7	0.470	0.0537	0.107		2
06139	Nickel	7440-02-0	9.06	0.107	0.430		2
06141	Selenium	7782-49-2	0.160 J	0.0623	0.430		2
06142	Silver	7440-22-4	0.0248 J	0.0152	0.107		2
06145	Thallium	7440-28-0	0.191	0.0322	0.107		2
06148	Vanadium	7440-62-2	29.7	0.0236	0.107		2
06149	Zinc	7440-66-6	58.4	0.601	3.22		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0079 J	0.0074	0.105		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.7	0.88	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.6 J	0.88	1.6		1
		EPA 314.0	ug/kg	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	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	4.7	0.22	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.48	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.8	0.50	0.50		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-172-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-4.0-5.0

LLI Sample # SW 6421309
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5617 SDG#: DE256-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-172-SA7-SB-4.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 11:33	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 15:36	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 12:02	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 14:33	Laura M Krieger	24.27
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127125677	09/28/2011 17:28	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127125677	09/28/2011 17:29	Lois E Hiltz	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 21:24	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 07:27	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 22:38	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 03:17	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/08/2011 15:41	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 04:51	Heather E Williams	10
11238	EPH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 03:03	John W Yanzuk II	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-172-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-4.0-5.0

LLI Sample # SW 6421309
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:35

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5617 SDG#: DE256-17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 09:05	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:54	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 23:19	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 23:19	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 23:19	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 23:19	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 21:35	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 21:35	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 16:09	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 20:19	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 7 of 7

Sample Description: SL-172-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-4.0-5.0

LLI Sample # SW 6421309
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:35

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/28/2011 09:00

Suite 210

Reported: 10/26/2011 13:44

Chantilly VA 20151

E5617 SDG#: DE256-17

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	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401B	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 1 of 7

Sample Description: SL-172-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-9.0-10.0

LLI Sample # SW 6421310
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5618 SDG#: DE256-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	184 U	184	367		10
Reporting limits were raised due to interference from the sample matrix.							
GC/MS Semivolatiles SW-846 8270C			ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	2-butoxy-Ethanol	111-76-2	1,800	U 1,800	1,800		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-172-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-9.0-10.0

LLI Sample # SW 6421310
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5618 SDG#: DE256-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	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	2-phenoxy-Ethanol	122-99-6	1,800	U 1,800	1,800		1
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.74	J 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1

GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1	21.93

HPLC Organics	SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg
04173	20a Formaldehyde 8315A	50-00-0	660	U 660	1,700

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-172-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-9.0-10.0

LLI Sample # SW 6421310
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5618 SDG#: DE256-18

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U	0.36	1.9		1
10225	PCB-1221	11104-28-2	0.36	U	0.36	1.9		1
10225	PCB-1232	11141-16-5	0.36	U	0.36	1.9		1
10225	PCB-1242	53469-21-9	0.36	U	0.36	1.9		1
10225	PCB-1248	12672-29-6	0.36	U	0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U	0.36	1.9		1
10225	PCB-1260	11096-82-5	0.43	U	0.43	1.9		1
10225	PCB-1262	37324-23-5	0.36	U	0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U	0.36	1.9		1
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110	U	110	550		1
10501	Isopropanol	67-63-0	110	U	110	550		1
10501	Methanol	67-56-1	110	U	110	550		1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.5	U	5.5	11		1
08283	Ethylene glycol	107-21-1	5.5	U	5.5	11		1
08283	Propylene glycol	57-55-6	5.5	U	5.5	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.44	U	0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.44	U	0.44	1.3		1
10199	EFH (C21-C30)	n.a.	5.6		0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	19		0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44	U	0.44	1.3		1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,200		6.60	21.8		1
07914	Boron	7440-42-8	6.98		0.393	5.45		1
01650	Calcium	7440-70-2	3,920		2.73	21.8		1
01654	Iron	7439-89-6	18,400		2.85	21.8		1
01656	Lithium	7439-93-2	22.2		0.68	2.2		1
01657	Magnesium	7439-95-4	4,100		0.480	10.9		1
06958	Manganese	7439-96-5	246		0.0393	0.545		1
10145	Phosphorus	7723-14-0	298		0.382	10.9		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-172-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-9.0-10.0

LLI Sample # SW 6421310
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5618 SDG#: DE256-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,580	12.3	54.5		1
01667	Sodium	7440-23-5	143	6.49	109		1
07968	Strontium	7440-24-6	17.6	0.0273	0.545		1
06969	Tin	7440-31-5	0.941 J	0.349	10.9		1
06970	Titanium	7440-32-6	1,080	0.0767	1.08		1
10146	Zirconium	7440-67-7	1.23 J	0.502	5.45		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0791 U	0.0791	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	4.77	0.0855	0.428		2
06126	Barium	7440-39-3	83.5	0.113	0.428		2
06127	Beryllium	7440-41-7	0.570	0.0171	0.107		2
06128	Cadmium	7440-43-9	0.119	0.0470	0.107		2
06131	Chromium	7440-47-3	16.3	0.128	0.428		2
06132	Cobalt	7440-48-4	5.40	0.0214	0.107		2
06133	Copper	7440-50-8	7.73	0.0855	0.428		2
06135	Lead	7439-92-1	6.48	0.0109	0.214		2
06138	Molybdenum	7439-98-7	0.376	0.0535	0.107		2
06139	Nickel	7440-02-0	10.2	0.107	0.428		2
06141	Selenium	7782-49-2	0.126 J	0.0620	0.428		2
06142	Silver	7440-22-4	0.0224 J	0.0152	0.107		2
06145	Thallium	7440-28-0	0.242	0.0321	0.107		2
06148	Vanadium	7440-62-2	34.8	0.0235	0.107		2
06149	Zinc	7440-66-6	58.9	0.599	3.21		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0490 J	0.0074	0.105		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.5	0.87	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.0	0.87	1.6		1
		EPA 314.0	ug/kg	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	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.29	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	9.2	0.50	0.50		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-172-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-9.0-10.0

LLI Sample # SW 6421310
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5618 SDG#: DE256-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-172-SA7-SB-9.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 11:52	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 16:01	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 12:36	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 15:09	Laura M Krieger	21.93
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127125677	09/28/2011 17:44	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127125677	09/28/2011 17:45	Lois E Hiltz	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 21:34	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 07:46	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 22:54	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 03:30	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 06:31	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/08/2011 23:41	Heather E Williams	1
11238	EPH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 03:07	John W Yanzuk II	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-172-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-9.0-10.0

LLI Sample # SW 6421310
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5618 SDG#: DE256-18

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 09:09	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 09:58	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 23:22	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 23:22	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 23:22	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 23:22	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:20	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 21:48	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 21:48	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 16:32	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 20:26	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 7 of 7

Sample Description: SL-172-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-172-SA7-SB-9.0-10.0

LLI Sample # SW 6421310
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5618 SDG#: DE256-18

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	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401B	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 7

Sample Description: DUP-09-SA7-QC-092711 Soil
SSFL Area IV Collocated Soil Sampling
DUP-09-SA7-QC-092711

LLI Sample # SW 6421311
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5619 SDG#: DE256-19FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	17.3 U	17.3	34.7		1
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	2-butoxy-Ethanol	111-76-2	1,700	U 1,700	1,700		1
04688	Di-n-butylphthalate	84-74-2	35	J 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170		1
04688	4-Chloroaniline	106-47-8	69	U 69	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	35	U 35	170		1
04688	4-Methylphenol	106-44-5	35	U 35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	35	U 35	170		1
04688	4-Nitroaniline	100-01-6	69	U 69	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP-09-SA7-QC-092711 Soil
SSFL Area IV Collocated Soil Sampling
DUP-09-SA7-QC-092711

LLI Sample # SW 6421311
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5619 SDG#: DE256-19FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520		1
04688	Phenol	108-95-2	17	U 17	170		1
04688	2-phenoxy-Ethanol	122-99-6	1,700	U 1,700	1,700		1
04688	Tetralin	119-64-2	170	U 170	170		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.76	J 0.69	1.7		1
10138	Benzo(a)pyrene	50-32-8	1.0	J 0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	2.4	J 0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	1.0	J 0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.2	U 6.2	19		1
10138	Chrysene	218-01-9	1.5	J 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7		1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19		1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2	U 6.2	19		1
10138	Fluoranthene	206-44-0	1.0	J 0.69	1.7		1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7		1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19		1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7		1
10138	Pyrene	129-00-0	1.5	J 0.69	1.7		1

GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1	23.81

HPLC Organics	SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg
04173	20a Formaldehyde 8315A	50-00-0	620	U 620	1,600

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP-09-SA7-QC-092711 Soil
SSFL Area IV Collocated Soil Sampling
DUP-09-SA7-QC-092711

LLI Sample # SW 6421311
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5619 SDG#: DE256-19FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4		1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8		1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8		1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8		1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8		1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8		1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8		1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8		1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8		1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520		1
10501	Isopropanol	67-63-0	100 U	100	520		1
10501	Methanol	67-56-1	100 U	100	520		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10		1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10		1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.6		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.6		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.6		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	2.1 U	2.1	6.2		5
10199	EFH (C15-C20)	n.a.	2.1 U	2.1	6.2		5
10199	EFH (C21-C30)	n.a.	17	2.1	6.2		5
10199	EFH (C30 - C40)	n.a.	60	2.1	6.2		5
10199	EFH (C8-C11)	n.a.	2.1 U	2.1	6.2		5
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,100	6.00	19.8		1
07914	Boron	7440-42-8	6.69	0.357	4.96		1
01650	Calcium	7440-70-2	4,210	2.48	19.8		1
01654	Iron	7439-89-6	18,700	2.59	19.8		1
01656	Lithium	7439-93-2	24.0	0.61	2.0		1
01657	Magnesium	7439-95-4	4,320	0.436	9.91		1
06958	Manganese	7439-96-5	255	0.0357	0.496		1
10145	Phosphorus	7723-14-0	378	0.347	9.91		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP-09-SA7-QC-092711 Soil
SSFL Area IV Collocated Soil Sampling
DUP-09-SA7-QC-092711

LLI Sample # SW 6421311
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5619 SDG#: DE256-19FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,720	11.2	49.6		1
01667	Sodium	7440-23-5	81.8 J	5.90	99.1		1
07968	Strontium	7440-24-6	17.9	0.0248	0.496		1
06969	Tin	7440-31-5	0.615 J	0.317	9.91		1
06970	Titanium	7440-32-6	1,140	0.0731	1.03		1
10146	Zirconium	7440-67-7	1.13 J	0.456	4.96		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0740 U	0.0740	0.200		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	3.84	0.0800	0.400		2
06126	Barium	7440-39-3	76.0	0.106	0.400		2
06127	Beryllium	7440-41-7	0.425	0.0160	0.100		2
06128	Cadmium	7440-43-9	0.0950 J	0.0440	0.100		2
06131	Chromium	7440-47-3	14.4	0.120	0.400		2
06132	Cobalt	7440-48-4	4.59	0.0200	0.100		2
06133	Copper	7440-50-8	7.00	0.0800	0.400		2
06135	Lead	7439-92-1	4.51	0.0102	0.200		2
06138	Molybdenum	7439-98-7	0.445	0.0500	0.100		2
06139	Nickel	7440-02-0	9.02	0.100	0.400		2
06141	Selenium	7782-49-2	0.139 J	0.0580	0.400		2
06142	Silver	7440-22-4	0.0142 U	0.0142	0.100		2
06145	Thallium	7440-28-0	0.258	0.0300	0.100		2
06148	Vanadium	7440-62-2	31.5	0.0220	0.100		2
06149	Zinc	7440-66-6	50.8	0.560	3.00		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0079 J	0.0071	0.101		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.4	0.84	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	0.84 U	0.84	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.2		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.32	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	3.9	0.50	0.50		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: DUP-09-SA7-QC-092711 Soil
SSFL Area IV Collocated Soil Sampling
DUP-09-SA7-QC-092711

LLI Sample # SW 6421311
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5619 SDG#: DE256-19FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/10/2011 18:22	Matthew S Woods	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11279SLC026	10/13/2011 16:26	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11279SLD026	10/12/2011 13:08	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11279SLD026	10/06/2011 23:15	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11279SLC026	10/06/2011 23:15	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 15:45	Laura M Krieger	23.81
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127125677	09/28/2011 17:46	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127125677	09/28/2011 17:47	Lois E Hiltz	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 21:43	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112790038A	10/20/2011 08:04	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112790038A	10/07/2011 11:15	Kelli M Barto	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/04/2011 23:10	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112770027A	10/05/2011 03:42	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 06:58	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 05:15	Heather E Williams	5
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112770027A	10/04/2011 17:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708001	10/11/2011 03:11	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP-09-SA7-QC-092711 Soil
SSFL Area IV Collocated Soil Sampling
DUP-09-SA7-QC-092711

LLI Sample # SW 6421311
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5619 SDG#: DE256-19FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112845708002	10/12/2011 09:13	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112725708001	10/10/2011 10:02	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06125	Arsenic	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06126	Barium	SW-846 6020	1	112721026001D	09/29/2011 23:25	David K Beck	2
06127	Beryllium	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06128	Cadmium	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06131	Chromium	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06132	Cobalt	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06133	Copper	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06135	Lead	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06138	Molybdenum	SW-846 6020	1	112721026001C	09/29/2011 23:25	David K Beck	2
06139	Nickel	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06141	Selenium	SW-846 6020	1	112721026001B	09/29/2011 23:25	David K Beck	2
06142	Silver	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06145	Thallium	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06148	Vanadium	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
06149	Zinc	SW-846 6020	1	112721026001A	09/29/2011 23:25	David K Beck	2
00159	Mercury	SW-846 7471A	1	112725711001	09/29/2011 19:21	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708001	09/29/2011 11:57	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112845708002	10/11/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026001	09/29/2011 12:19	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711001	09/29/2011 12:59	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11279621201B	10/07/2011 22:00	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11279621201B	10/07/2011 22:00	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11277621203B	10/06/2011 16:55	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11280243201A	10/08/2011 20:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11279621201B	10/06/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11277621203B	10/04/2011 09:25	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11284039402B	10/11/2011 13:00	Michele L Graham	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: DUP-09-SA7-QC-092711 Soil
SSFL Area IV Collocated Soil Sampling
DUP-09-SA7-QC-092711

LLI Sample # SW 6421311
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5619 SDG#: DE256-19FD

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	11280243201A	10/07/2011 10:20	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401B	10/05/2011 19:53	Scott W Freisher	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 1

Sample Description: TB-092711 Water
SSFL Area IV Collocated Soil Sampling
TB-092711

LLI Sample # WW 6421312
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5620 SDG#: DE256-20TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11278B20A	10/06/2011 00:05	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278B20A	10/06/2011 00:05	Marie D John	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Acetone	67-64-1	26	6	20		1
10904	Benzene	71-43-2	0.5 U	0.5	5		1
10904	Bromobenzene	108-86-1	1 U	1	5		1
10904	Bromochloromethane	74-97-5	1 U	1	5		1
10904	Bromodichloromethane	75-27-4	1 U	1	5		1
10904	Bromoform	75-25-2	1 U	1	5		1
10904	Bromomethane	74-83-9	1 U	1	5		1
10904	2-Butanone	78-93-3	3 U	3	10		1
10904	n-Butylbenzene	104-51-8	1 U	1	5		1
10904	sec-Butylbenzene	135-98-8	1 U	1	5		1
10904	tert-Butylbenzene	98-06-6	1 U	1	5		1
10904	Carbon Tetrachloride	56-23-5	1 U	1	5		1
10904	Chlorobenzene	108-90-7	0.8 U	0.8	5		1
10904	Chloroethane	75-00-3	1 U	1	5		1
10904	2-Chloroethyl Vinyl Ether	110-75-8	2 U	2	10		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10904	Chloroform	67-66-3	0.8 U	0.8	5		1
10904	Chloromethane	74-87-3	1 U	1	5		1
10904	2-Chlorotoluene	95-49-8	1 U	1	5		1
10904	4-Chlorotoluene	106-43-4	1 U	1	5		1
10904	Chlorotrifluoroethene	79-38-9	2 U	2	5		1
10904	1,2-Dibromo-3-chloropropane	96-12-8	2 U	2	5		1
10904	Dibromochloromethane	124-48-1	1 U	1	5		1
10904	1,2-Dibromoethane	106-93-4	1 U	1	5		1
10904	Dibromomethane	74-95-3	1 U	1	5		1
10904	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
10904	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
10904	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
10904	Dichlorodifluoromethane	75-71-8	2 U	2	5		1
10904	1,1-Dichloroethane	75-34-3	1 U	1	5		1
10904	1,2-Dichloroethane	107-06-2	1 U	1	5		1
10904	1,1-Dichloroethene	75-35-4	0.8 U	0.8	5		1
10904	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5		1
10904	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5		1
10904	1,2-Dichloropropane	78-87-5	1 U	1	5		1
10904	1,3-Dichloropropane	142-28-9	1 U	1	5		1
10904	2,2-Dichloropropane	594-20-7	1 U	1	5		1
10904	1,1-Dichloropropene	563-58-6	1 U	1	5		1
10904	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5		1
10904	trans-1,3-Dichloropropene	10061-02-6	1 U	1	5		1
10904	Ethylbenzene	100-41-4	0.8 U	0.8	5		1
10904	Freon 113	76-13-1	2 U	2	10		1
10904	Freon 133a	75-88-7	2 U	2	5		1
10904	Hexachlorobutadiene	87-68-3	2 U	2	5		1
10904	2-Hexanone	591-78-6	3 U	3	10		1
10904	Isopropylbenzene	98-82-8	1 U	1	5		1
10904	p-Isopropyltoluene	99-87-6	1 U	1	5		1
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5		1
10904	4-Methyl-2-pentanone	108-10-1	3 U	3	10		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Methylene Chloride	75-09-2	3 J	2	5		1
10904	n-Propylbenzene	103-65-1	1 U	1	5		1
10904	Styrene	100-42-5	1 U	1	5		1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5		1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5		1
10904	Tetrachloroethene	127-18-4	0.8 U	0.8	5		1
10904	Toluene	108-88-3	0.7 U	0.7	5		1
10904	1,2,3-Trichlorobenzene	87-61-6	1 U	1	5		1
10904	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
10904	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5		1
10904	1,1,2-Trichloroethane	79-00-5	0.8 U	0.8	5		1
10904	Trichloroethene	79-01-6	1 U	1	5		1
10904	Trichlorofluoromethane	75-69-4	2 U	2	5		1
10904	1,2,3-Trichloropropane	96-18-4	1 U	1	5		1
10904	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5		1
10904	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5		1
10904	Vinyl Chloride	75-01-4	1 U	1	5		1
10904	m+p-Xylene	179601-23-1	0.8 U	0.8	5		1
10904	o-Xylene	95-47-6	0.8 U	0.8	5		1
GC/MS	Volatiles	SW-846 8260B SIM	ug/l	ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5 U	0.5	2.0		1
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	3.23	0.532	1.06		1
The surrogate recovery of n-nitrosodimethylamine-d6 was above the advisory QC limits in this sample. No further action was taken.							
N-Nitrosodimethylamine was detected in the method blank at a concentration of 1.47 ng/l. The blank value was not subtracted from the analytical result. This sample was re-extracted outside of the method required holding time, and comparable data was observed. The data reported here is from the initial extraction of the sample.							
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1 U	1	6		1
04678	Benizidine	92-87-5	22 U	22	66		1
04678	Benzoic acid	65-85-0	7 U	7	17		1
04678	Benzyl alcohol	100-51-6	6 U	6	17		1
04678	4-Bromophenyl-phenylether	101-55-3	1 U	1	6		1
04678	Carbazole	86-74-8	1 U	1	6		1
04678	4-Chloro-3-methylphenol	59-50-7	1 U	1	6		1
04678	4-Chloroaniline	106-47-8	1 U	1	6		1
04678	bis(2-Chloroethoxy)methane	111-91-1	1 U	1	6		1
04678	bis(2-Chloroethyl)ether	111-44-4	1 U	1	6		1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1 U	1	6		1
04678	2-Chloronaphthalene	91-58-7	2 U	2	6		1
04678	2-Chlorophenol	95-57-8	1 U	1	6		1
04678	4-Chlorophenyl-phenylether	7005-72-3	2 U	2	6		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/28/2011 09:00

Suite 210

Reported: 10/26/2011 13:44

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	Dibenzofuran	132-64-9	1 U	1	6		1
04678	1,2-Dichlorobenzene	95-50-1	1 U	1	6		1
04678	1,3-Dichlorobenzene	541-73-1	1 U	1	6		1
04678	1,4-Dichlorobenzene	106-46-7	1 U	1	6		1
04678	3,3'-Dichlorobenzidine	91-94-1	2 U	2	6		1
04678	2,4-Dichlorophenol	120-83-2	1 U	1	6		1
04678	2,4-Dimethylphenol	105-67-9	3 U	3	11		1
04678	3,5-Dimethylphenol	108-68-9	3 U	3	11		1
04678	4,6-Dinitro-2-methylphenol	534-52-1	6 U	6	17		1
04678	2,4-Dinitrophenol	51-28-5	11 U	11	33		1
04678	2,4-Dinitrotoluene	121-14-2	1 U	1	6		1
04678	2,6-Dinitrotoluene	606-20-2	1 U	1	6		1
04678	1,2-Diphenylhydrazine	122-66-7	1 U	1	6		1
04678	Hexachlorobenzene	118-74-1	1 U	1	6		1
04678	Hexachlorobutadiene	87-68-3	1 U	1	6		1
04678	Hexachlorocyclopentadiene	77-47-4	6 U	6	17		1
04678	Hexachloroethane	67-72-1	1 U	1	6		1
04678	Isophorone	78-59-1	1 U	1	6		1
04678	2-Methylphenol	95-48-7	1 U	1	6		1
04678	4-Methylphenol	106-44-5	2 U	2	6		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04678	2-Nitroaniline	88-74-4	1 U	1	6		1
04678	3-Nitroaniline	99-09-2	1 U	1	6		1
04678	4-Nitroaniline	100-01-6	1 U	1	6		1
04678	Nitrobenzene	98-95-3	1 U	1	6		1
04678	2-Nitrophenol	88-75-5	1 U	1	6		1
04678	4-Nitrophenol	100-02-7	11 U	11	33		1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	6		1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	6		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04678	Pentachlorophenol	87-86-5	3 U	3	17		1
04678	Phenol	108-95-2	1 U	1	6		1
04678	Tetralin	119-64-2	6 U	6	6		1
1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
04678	1,2,4-Trichlorobenzene	120-82-1	1 U	1	6		1
04678	2,4,5-Trichlorophenol	95-95-4	1 U	1	6		1
04678	2,4,6-Trichlorophenol	88-06-2	1 U	1	6		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.011 U	0.011	0.055		1
10137	Acenaphthylene	208-96-8	0.011 U	0.011	0.055		1
10137	Anthracene	120-12-7	0.011 U	0.011	0.055		1
10137	Benzo(a)anthracene	56-55-3	0.011 U	0.011	0.055		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Benzo(a)pyrene	50-32-8	0.011 U	0.011	0.055		1
10137	Benzo(b)fluoranthene	205-99-2	0.011 U	0.011	0.055		1
10137	Benzo(g,h,i)perylene	191-24-2	0.011 U	0.011	0.055		1
10137	Benzo(k)fluoranthene	207-08-9	0.011 U	0.011	0.055		1
10137	Butylbenzylphthalate	85-68-7	0.055 U	0.055	1.1		1
10137	Di-n-butylphthalate	84-74-2	0.79 J	0.055	1.1		1
10137	Chrysene	218-01-9	0.011 U	0.011	0.055		1
10137	Dibenz(a,h)anthracene	53-70-3	0.011 U	0.011	0.055		1
10137	Diethylphthalate	84-66-2	0.36 J	0.055	1.1		1
10137	Dimethylphthalate	131-11-3	0.055 U	0.055	1.1		1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.13 J	0.055	1.1		1
10137	Fluoranthene	206-44-0	0.011 U	0.011	0.055		1
10137	Fluorene	86-73-7	0.011 U	0.011	0.055		1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.011 U	0.011	0.055		1
10137	1-Methylnaphthalene	90-12-0	0.011 U	0.011	0.055		1
10137	2-Methylnaphthalene	91-57-6	0.011 U	0.011	0.055		1
10137	Naphthalene	91-20-3	0.091 U	0.033	0.055		1
10137	N-Nitrosodimethylamine	62-75-9	0.011 U	0.011	0.055		1
10137	Di-n-octylphthalate	117-84-0	0.11 J	0.055	1.1		1
10137	Phenanthrene	85-01-8	0.033 U	0.033	0.055		1
10137	Pyrene	129-00-0	0.011 U	0.011	0.055		1
Reporting limits were raised due to limited sample volume.							

GC Volatiles	TPH GRO SW-8015B	ug/l	ug/l	ug/l	ug/l
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50

Explosives	SW-846 8330A	ug/l	ug/l	ug/l	ug/l
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.65 U	0.65	0.65
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.20 U	0.20	0.60
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.20 U	0.20	0.60
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.20 U	0.20	0.60
10131	1,3-Dinitrobenzene	99-65-0	0.20 U	0.20	0.60
10131	2,4-Dinitrotoluene	121-14-2	0.20 U	0.20	0.60
10131	2,6-Dinitrotoluene	606-20-2	0.20 U	0.20	0.60
10131	HMX	2691-41-0	0.65 U	0.65	2.0
10131	Nitrobenzene	98-95-3	0.20 U	0.20	0.60
10131	Nitroglycerin	55-63-0	5.2 U	5.2	15
10131	2-Nitrotoluene	88-72-2	0.20 U	0.20	0.60

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

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Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/l	ug/l	ug/l	ug/l	
10131	3-Nitrotoluene	99-08-1	0.40 U	0.40	1.2	1000000 0	1
10131	4-Nitrotoluene	99-99-0	0.60 U	0.60	1.2	1000000 0	1
10131	PETN	78-11-5	6.0 U	6.0	18	1000000 0	1
10131	RDX	121-82-4	3.4	0.20	0.60	1000000 0	1
10131	Tetryl	479-45-8	0.40 U	0.40	0.60	1000000 0	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.20 U	0.20	0.60	1000000 0	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.20 U	0.20	0.60	1000000 0	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both extracts.
Reporting limits were raised due to interference from the sample matrix.

HPLC Organics		SW-846 8315A	ug/l	ug/l	ug/l	ug/l	
04144	20b Formaldehyde	8315A 50-00-0	10 U	10	50		1
Pesticides/PCBs		SW-846 8082	ug/l	ug/l	ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.10 U	0.10	0.51		1
10227	Aroclor 5442	12642-23-8	0.10 U	0.10	0.51		1
10227	Aroclor 5460	11126-42-4	0.10 U	0.10	0.51		1
10227	PCB-1016	12674-11-2	0.10 U	0.10	0.51		1
10227	PCB-1221	11104-28-2	0.10 U	0.10	0.51		1
10227	PCB-1232	11141-16-5	0.21 U	0.21	0.51		1
10227	PCB-1242	53469-21-9	0.10 U	0.10	0.51		1
10227	PCB-1248	12672-29-6	0.10 U	0.10	0.51		1
10227	PCB-1254	11097-69-1	0.10 U	0.10	0.51		1
10227	PCB-1260	11096-82-5	0.15 U	0.15	0.51		1
10227	PCB-1262	37324-23-5	0.21 U	0.21	0.51		1
10227	PCB-1268	11100-14-4	0.16 U	0.16	0.51		1
GC Miscellaneous		SW-846 8015B	ug/l	ug/l	ug/l	ug/l	
06624	Ethanol	64-17-5	200 U	200	1,000		1
06624	Isopropanol	67-63-0	200 U	200	1,000		1
06624	Methanol	67-56-1	200 U	200	1,000		1

GC Miscellaneous SW-846 8015B modified mg/l mg/l mg/l mg/l

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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

Page 6 of 9

Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC Miscellaneous		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
08278	Diethylene glycol	111-46-6	20	U	20	200		1
08278	Ethylene glycol	107-21-1	20	U	20	200		1
08278	Propylene glycol	57-55-6	20	U	20	200		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/l		mg/l	mg/l	mg/l	
10319	m-Terphenyl	92-06-8	0.085	U	0.085	0.27		1
10319	o-Terphenyl	84-15-1	0.085	U	0.085	0.27		1
10319	p-Terphenyl	92-94-4	0.085	U	0.085	0.27		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
10365	EFH (C12-C14)	n.a.	0.095	U	0.095	0.57		1
10365	EFH (C15-C20)	n.a.	0.095	U	0.095	0.57		1
10365	EFH (C21-C30)	n.a.	0.095	U	0.095	0.57		1
10365	EFH (C30 - C40)	n.a.	0.095	U	0.095	0.57		1
10365	EFH (C8-C11)	n.a.	0.095	U	0.095	0.57		1
Metals		SW-846 6010B	mg/l		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801	U	0.0801	0.200		1
08014	Boron	7440-42-8	0.0039	J	0.0022	0.0500		1
01750	Calcium	7440-70-2	0.0705	U	0.0705	0.200		1
01754	Iron	7439-89-6	0.0141	U	0.0141	0.200		1
01756	Lithium	7439-93-2	0.0076	U	0.0076	0.0200		1
01757	Magnesium	7439-95-4	0.0067	U	0.0067	0.100		1
07058	Manganese	7439-96-5	0.00044	U	0.00044	0.0050		1
10143	Phosphorus	7723-14-0	0.0047	U	0.0047	0.100		1
01762	Potassium	7440-09-7	0.0874	U	0.0874	0.500		1
01767	Sodium	7440-23-5	0.0647	U	0.0647	1.00		1
08068	Strontium	7440-24-6	0.00023	J	0.00022	0.0050		1
07069	Tin	7440-31-5	0.0043	U	0.0043	0.0200		1
07070	Titanium	7440-32-6	0.00046	U	0.00046	0.0100		1
10144	Zirconium	7440-67-7	0.0042	U	0.0042	0.0500		1
		SW-846 6020	mg/l		mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042	U	0.00042	0.0010		1
06025	Arsenic	7440-38-2	0.00095	U	0.00095	0.0020		1
06026	Barium	7440-39-3	0.00069	U	0.00069	0.0020		1
06027	Beryllium	7440-41-7	0.00013	U	0.00013	0.00050		1
06028	Cadmium	7440-43-9	0.00020	U	0.00020	0.00050		1
06031	Chromium	7440-47-3	0.00060	U	0.00060	0.0020		1
06032	Cobalt	7440-48-4	0.00010	U	0.00010	0.00050		1
06033	Copper	7440-50-8	0.00038	U	0.00038	0.0020		1
06035	Lead	7439-92-1	0.00013	J	0.000080	0.0010		1
06038	Molybdenum	7439-98-7	0.00025	U	0.00025	0.00050		1
06039	Nickel	7440-02-0	0.00050	U	0.00050	0.0020		1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/l	mg/l	mg/l	mg/l	
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020		1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050		1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050		1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050		1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150		1
		SW-846 7470A	mg/l	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000045 J	0.000026	0.00020		1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10		1
00368	11b Anions by 300.0 - Nitrate	14797-55-8	0.050 U	0.050	0.10		1
		EPA 314.0	ug/l	ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0		1
		SW-846 7199	ug/l	ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0		1
		SW-846 9012B	mg/l	mg/l	mg/l	mg/l	
08255	16b Cyanide by 9012B	57-12-5	0.0050 U	0.0050	0.010		1
		SW-846 9040B	Std. Units	Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.7	0.010	0.010		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
10904	1b Volatile Organics EPA8260B	SW-846 8260B	1	Y112722AA	09/29/2011 20:24	Frank A Valla, Jr	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E112722AA	09/29/2011 21:22	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y112722AA	09/29/2011 20:24	Frank A Valla, Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	E112722AA	09/29/2011 21:22	Sara E Johnson	1
10962	21b NDMA by 1625C	EPA 1625C	1	11269WAA026	10/04/2011 13:29	Matthew S Woods	1
04678	5b SVOCs with Tetralin 8270C	SW-846 8270C	1	11276WAC026	10/05/2011 15:13	Linda M Hartenstine	1

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Analysis Report

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Page 8 of 9

Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274WAB026	10/11/2011 22:01	Gregory J Drahovsky	1
00813	BNA Water Extraction	SW-846 3510C	1	11276WAC026	10/04/2011 09:40	Denise L Trimby	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11274WAB026	10/02/2011 20:00	Elaine F Stoltzfus	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11269WAA026	09/28/2011 15:10	Wanda F Oswald	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11278B20A	10/06/2011 00:49	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11278B20A	10/06/2011 00:49	Marie D John	1
10131	15b Energetics by 8330A	SW-846 8330A	1	112760016A	10/05/2011 17:40	James H Place	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	112720027A	09/30/2011 17:48	James H Place	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	112740023A	10/04/2011 20:32	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	112740023A	10/04/2011 02:30	Sherry L Morrow	1
01013	Formaldehyde Extraction	SW-846 8315A	1	112720027A	09/30/2011 08:40	Denise L Trimby	1
11122	Energetics Extraction	SW-846 8330	1	112760016A	10/04/2011 18:30	Wanda F Oswald	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	112730033A	09/30/2011 22:24	Elizabeth J Marin	1
08278	19b Glycols by 8015B	SW-846 8015B modified	1	112710013A	09/28/2011 23:10	Tyler O Griffin	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	112730012A	10/01/2011 20:19	Heather E Williams	1
10365	9b TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112740003A	10/05/2011 08:04	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	112740003A	10/03/2011 10:00	Catherine R Wiker	1
10304	Terphenyls water prep	SW-846 3510C	1	112730012A	09/30/2011 16:50	Bronson L Cole	1
01743	Aluminum	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
08014	Boron	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
01754	Iron	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
01756	Lithium	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
10143	Phosphorus	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
01762	Potassium	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
01767	Sodium	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
08068	Strontium	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
07069	Tin	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
07070	Titanium	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
10144	Zirconium	SW-846 6010B	1	112781848003	10/09/2011 23:51	Tara L Snyder	1
06024	Antimony	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06026	Barium	SW-846 6020	1	112786050001D	10/06/2011 08:11	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06033	Copper	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06035	Lead	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	112786050001C	10/06/2011 08:11	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1

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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-092711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-092711

LLI Sample # WW 6421313
LLI Group # 1268676
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/26/2011 13:44

Suite 210

Chantilly VA 20151

E5621 SDG#: DE256-21EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06041	Selenium	SW-846 6020	1	112786050001B	10/06/2011 08:11	Choon Y Tian	1
06042	Silver	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	112786050001A	10/06/2011 08:11	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	112785713001	10/06/2011 09:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	112781848003	10/05/2011 12:07	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	112786050001	10/05/2011 12:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	112785713001	10/05/2011 14:54	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11271196901B	09/28/2011 16:47	Ashley M Adams	1
00368	11b Anions by 300.0 - Nitrate	EPA 300.0	1	11271196901B	09/28/2011 16:47	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	11272281101A	09/29/2011 11:30	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11271281401A	09/28/2011 12:16	Elyse P Brunstetter	1
08255	16b Cyanide by 9012B	SW-846 9012B	1	11276117102B	10/03/2011 20:07	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	11276117102B	10/03/2011 15:00	Carolyn M Mastropietro	1
00200	17b pH by 9040B	SW-846 9040B	1	11273020001A	09/30/2011 17:00	Luz M Groff	1

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: E112722AA	Sample number(s): 6421313								
1,4-Dioxane	0.5 U	0.5	2.0	ug/l	105		80-123		
Batch number: Y112722AA	Sample number(s): 6421313								
Acetone	6 U	6.	20	ug/l	133	112	49-234	17	30
Benzene	0.5 U	0.5	5	ug/l	101	100	79-120	1	30
Bromobenzene	1 U	1.	5	ug/l	106	102	80-120	3	30
Bromochloromethane	1 U	1.	5	ug/l	106	101	80-120	4	30
Bromodichloromethane	1 U	1.	5	ug/l	98	95	80-120	4	30
Bromoform	1 U	1.	5	ug/l	93	90	61-120	3	30
Bromomethane	1 U	1.	5	ug/l	77	77	44-120	0	30
2-Butanone	3 U	3.	10	ug/l	111	103	66-151	7	30
n-Butylbenzene	1 U	1.	5	ug/l	105	101	74-120	3	30
sec-Butylbenzene	1 U	1.	5	ug/l	109	106	78-120	3	30
tert-Butylbenzene	1 U	1.	5	ug/l	105	101	80-120	4	30
Carbon Tetrachloride	1 U	1.	5	ug/l	98	96	75-123	3	30
Chlorobenzene	0.8 U	0.8	5	ug/l	106	102	80-120	4	30
Chloroethane	1 U	1.	5	ug/l	72	72	49-129	0	30
2-Chloroethyl Vinyl Ether	2 U	2.	10	ug/l	111	109	56-129	1	30
Chloroform	0.8 U	0.8	5	ug/l	101	100	77-122	2	30
Chloromethane	1 U	1.	5	ug/l	84	81	60-129	4	30
2-Chlorotoluene	1 U	1.	5	ug/l	106	102	80-120	4	30
4-Chlorotoluene	1 U	1.	5	ug/l	106	102	80-120	5	30
Chlorotrifluoroethene	2 U	2.	5	ug/l	56	57	38-136	2	30
1,2-Dibromo-3-chloropropane	2 U	2.	5	ug/l	97	90	56-126	8	30
Dibromochloromethane	1 U	1.	5	ug/l	98	93	80-120	5	30
1,2-Dibromoethane	1 U	1.	5	ug/l	103	99	80-120	4	30
Dibromomethane	1 U	1.	5	ug/l	101	99	80-120	3	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	106	103	80-120	3	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	107	103	80-120	3	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	106	102	80-120	4	30
Dichlorodifluoromethane	2 U	2.	5	ug/l	72	69	47-120	4	30
1,1-Dichloroethane	1 U	1.	5	ug/l	99	97	79-120	2	30
1,2-Dichloroethane	1 U	1.	5	ug/l	99	94	70-130	6	30
1,1-Dichloroethene	0.8 U	0.8	5	ug/l	87	85	74-123	2	30
cis-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	102	101	80-120	1	30
trans-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	99	97	80-120	2	30
1,2-Dichloropropane	1 U	1.	5	ug/l	102	99	78-120	3	30
1,3-Dichloropropane	1 U	1.	5	ug/l	102	99	80-120	3	30
2,2-Dichloropropane	1 U	1.	5	ug/l	100	97	77-124	3	30
1,1-Dichloropropene	1 U	1.	5	ug/l	99	97	80-120	2	30
cis-1,3-Dichloropropene	1 U	1.	5	ug/l	98	95	80-120	4	30
trans-1,3-Dichloropropene	1 U	1.	5	ug/l	98	95	79-120	2	30
Ethylbenzene	0.8 U	0.8	5	ug/l	105	102	79-120	3	30
Freon 113	2 U	2.	10	ug/l	89	88	69-128	2	30
Freon 133a	2 U	2.	5	ug/l	77	78	77-120	1	30

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachlorobutadiene	2 U	2.	5	ug/l	100	97	58-120	3	30
2-Hexanone	3 U	3.	10	ug/l	101	97	65-136	4	30
Isopropylbenzene	1 U	1.	5	ug/l	108	105	77-120	3	30
p-Isopropyltoluene	1 U	1.	5	ug/l	107	104	80-120	3	30
Methyl Tertiary Butyl Ether	0.5 U	0.5	5	ug/l	99	96	76-120	2	30
4-Methyl-2-pentanone	3 U	3.	10	ug/l	96	93	70-121	3	30
Methylene Chloride	2 U	2.	5	ug/l	92	97	80-120	5	30
n-Propylbenzene	1 U	1.	5	ug/l	105	101	80-120	3	30
Styrene	1 U	1.	5	ug/l	107	104	80-120	3	30
1,1,1,2-Tetrachloroethane	1 U	1.	5	ug/l	103	100	80-120	4	30
1,1,2,2-Tetrachloroethane	1 U	1.	5	ug/l	102	98	71-120	4	30
Tetrachloroethene	0.8 U	0.8	5	ug/l	104	102	80-121	2	30
Toluene	0.7 U	0.7	5	ug/l	104	101	79-120	3	30
1,2,3-Trichlorobenzene	1 U	1.	5	ug/l	104	100	65-120	4	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	106	102	67-120	4	30
1,1,1-Trichloroethane	0.8 U	0.8	5	ug/l	98	97	75-127	1	30
1,1,2-Trichloroethane	0.8 U	0.8	5	ug/l	105	102	80-120	3	30
Trichloroethene	1 U	1.	5	ug/l	102	100	80-120	3	30
Trichlorofluoromethane	2 U	2.	5	ug/l	86	84	64-129	3	30
1,2,3-Trichloropropane	1 U	1.	5	ug/l	102	98	80-120	4	30
1,2,4-Trimethylbenzene	1 U	1.	5	ug/l	108	104	74-120	3	30
1,3,5-Trimethylbenzene	1 U	1.	5	ug/l	108	103	75-120	4	30
Vinyl Chloride	1 U	1.	5	ug/l	83	81	65-125	2	30
m+p-Xylene	0.8 U	0.8	5	ug/l	106	102	80-120	3	30
o-Xylene	0.8 U	0.8	5	ug/l	105	102	80-120	3	30

Batch number: 11269WAA026 Sample number(s): 6421313
N-Nitrosodimethylamine 1.47 0.500 1.00 ng/l 95 112 70-130 16 30

Batch number: 11274WAB026 Sample number(s): 6421313

Acenaphthene	0.010 U	0.010	0.050	ug/l	99	103	74-109	3	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	97	98	70-110	1	30
Anthracene	0.010 U	0.010	0.050	ug/l	100	101	66-111	1	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	100	100	72-114	0	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	99	101	60-127	1	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	102	104	58-151	2	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	102	103	57-131	1	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	104	104	59-130	0	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	104	105	40-138	1	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	104	105	56-148	1	30
Chrysene	0.010 U	0.010	0.050	ug/l	100	100	76-116	0	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	105	105	55-134	1	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	102	103	37-148	1	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	103	103	40-119	1	30
Bis(2-Ethylhexyl)phthalate	0.050 U	0.050	1.0	ug/l	115	116	57-154	1	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	101	101	75-116	0	30
Fluorene	0.010 U	0.010	0.050	ug/l	104	104	75-114	0	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	103	104	53-158	1	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	94	94	71-117	0	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	93	93	75-115	0	30
Naphthalene	0.030 U	0.030	0.050	ug/l	95	96	72-109	0	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	57	55	36-89	4	30
Di-n-octylphthalate	0.050 U	0.050	1.0	ug/l	107	109	57-145	3	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	97	96	76-111	1	30
Pyrene	0.010 U	0.010	0.050	ug/l	98	99	69-118	1	30

Batch number: 11276WAC026 Sample number(s): 6421313
Aniline 1 U 1. 5 ug/l 88 86 38-116 3 30

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzidine	20 U	20.	60	ug/l	57	60	34-117	5	30
Benzoic acid	6 U	6.	15	ug/l	43	18	10-69	82*	30
Benzyl alcohol	5 U	5.	15	ug/l	94	90	66-97	5	30
4-Bromophenyl-phenylether	1 U	1.	5	ug/l	108	96	75-115	13	30
Carbazole	1 U	1.	5	ug/l	113	102	75-120	11	30
4-Chloro-3-methylphenol	1 U	1.	5	ug/l	113	102	70-123	10	30
4-Chloroaniline	1 U	1.	5	ug/l	76	82	24-128	7	30
bis(2-Chloroethoxy)methane	1 U	1.	5	ug/l	108	96	74-124	11	30
bis(2-Chloroethyl) ether	1 U	1.	5	ug/l	109*	100	77-108	8	30
bis(2-Chloroisopropyl) ether	1 U	1.	5	ug/l	100	93	62-127	7	30
2-Chloronaphthalene	2 U	2.	5	ug/l	108	94	54-132	13	30
2-Chlorophenol	1 U	1.	5	ug/l	107	102	71-114	5	30
4-Chlorophenyl-phenylether	2 U	2.	5	ug/l	103	93	77-114	10	30
Dibenzofuran	1 U	1.	5	ug/l	108	95	75-117	13	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	102	98	55-118	5	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	103	97	61-111	5	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	98	94	53-119	4	30
3,3'-Dichlorobenzidine	2 U	2.	5	ug/l	75	78	37-117	4	30
2,4-Dichlorophenol	1 U	1.	5	ug/l	109	101	77-117	8	30
2,4-Dimethylphenol	3 U	3.	10	ug/l	109	99	72-110	9	30
3,5-Dimethylphenol	3 U	3.	10	ug/l	109	97	70-130	12	30
4,6-Dinitro-2-methylphenol	5 U	5.	15	ug/l	108	97	65-126	10	30
2,4-Dinitrophenol	10 U	10.	30	ug/l	102	91	52-131	11	30
2,4-Dinitrotoluene	1 U	1.	5	ug/l	110	99	76-119	10	30
2,6-Dinitrotoluene	1 U	1.	5	ug/l	116	106	76-118	9	30
1,2-Diphenylhydrazine	1 U	1.	5	ug/l	117	104	68-127	12	30
Hexachlorobenzene	1 U	1.	5	ug/l	104	92	75-119	13	30
Hexachlorobutadiene	1 U	1.	5	ug/l	99	89	57-124	10	30
Hexachlorocyclopentadiene	5 U	5.	15	ug/l	90	78	36-118	14	30
Hexachloroethane	1 U	1.	5	ug/l	103	97	52-113	5	30
Isophorone	1 U	1.	5	ug/l	111	99	74-117	12	30
2-Methylphenol	1 U	1.	5	ug/l	103	96	58-110	7	30
4-Methylphenol	2 U	2.	5	ug/l	96	91	49-108	5	30
2-Nitroaniline	1 U	1.	5	ug/l	106	95	75-120	10	30
3-Nitroaniline	1 U	1.	5	ug/l	102	98	74-113	4	30
4-Nitroaniline	1 U	1.	5	ug/l	75	71	59-100	5	30
Nitrobenzene	1 U	1.	5	ug/l	111*	102	75-109	9	30
2-Nitrophenol	1 U	1.	5	ug/l	115	106	76-118	9	30
4-Nitrophenol	10 U	10.	30	ug/l	53	50	16-78	7	30
N-Nitroso-di-n-propylamine	1 U	1.	5	ug/l	102	93	69-110	9	30
N-Nitrosodiphenylamine	2 U	2.	5	ug/l	115	101	67-136	13	30
Pentachlorophenol	3 U	3.	15	ug/l	100	96	53-110	4	30
Phenol	1 U	1.	5	ug/l	53	50	21-67	6	30
Tetralin	5 U	5.	5	ug/l					
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	103	95	71-112	8	30
2,4,5-Trichlorophenol	1 U	1.	5	ug/l	107	96	79-107	12	30
2,4,6-Trichlorophenol	1 U	1.	5	ug/l	117	101	76-120	14	30

Batch number: 11279SLC026

Sample number(s): 6421288-6421301, 6421305-6421311

Acenaphthene	17 U	17.	170	ug/kg	96	76-111
Acenaphthylene	17 U	17.	170	ug/kg	105	75-122
Aniline	170 U	170.	500	ug/kg	70	20-115
Anthracene	17 U	17.	170	ug/kg	105	76-112
Benzidine	1,200 U	1,200.	3,300	ug/kg	52	15-121
Benzo(a)anthracene	17 U	17.	170	ug/kg	98	73-112
Benzo(a)pyrene	17 U	17.	170	ug/kg	105	65-124

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

<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>
Benzo(b)fluoranthene	17	U	17.	170	ug/kg	110		61-127		
Benzo(g,h,i)perylene	17	U	17.	170	ug/kg	103		60-125		
Benzo(k)fluoranthene	17	U	17.	170	ug/kg	104		67-125		
Benzoic acid	170		170.	500	ug/kg	85		62-113		
	U									
Benzyl alcohol	170		170.	500	ug/kg	91		68-111		
	U									
4-Bromophenyl-phenylether	17	U	17.	170	ug/kg	103		73-114		
2-butoxy-Ethanol	1,700		1,700.	1,700	ug/kg					
	U									
Butylbenzylphthalate	17	U	17.	170	ug/kg	99		75-115		
Di-n-butylphthalate	17	U	17.	170	ug/kg	107		79-112		
Carbazole	17	U	17.	170	ug/kg	99		77-113		
4-Chloro-3-methylphenol	33	U	33.	170	ug/kg	100		74-119		
4-Chloroaniline	67	U	67.	170	ug/kg	57		10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170	ug/kg	95		70-118		
bis(2-Chloroethyl)ether	17	U	17.	170	ug/kg	89		70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170	ug/kg	92		62-115		
2-Chloronaphthalene	17	U	17.	170	ug/kg	86		49-128		
2-Chlorophenol	17	U	17.	170	ug/kg	93		72-112		
4-Chlorophenyl-phenylether	33	U	33.	170	ug/kg	100		74-115		
Chrysene	17	U	17.	170	ug/kg	93		76-113		
Dibenz(a,h)anthracene	17	U	17.	170	ug/kg	103		61-126		
Dibenzofuran	17	U	17.	170	ug/kg	95		74-116		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	84		74-99		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	81		70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	82		74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	39		10-116		
	U									
2,4-Dichlorophenol	17	U	17.	170	ug/kg	98		75-111		
Diethylphthalate	17	U	17.	170	ug/kg	105		76-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	96		72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	107		83-120		
Dimethylphthalate	17	U	17.	170	ug/kg	102		77-109		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	75		46-120		
	U									
2,4-Dinitrophenol	330		330.	1,000	ug/kg	55		18-133		
	U									
2,4-Dinitrotoluene	33	U	33.	170	ug/kg	101		73-115		
2,6-Dinitrotoluene	17	U	17.	170	ug/kg	104		79-115		
1,2-Diphenylhydrazine	17	U	17.	170	ug/kg	102		71-125		
bis(2-Ethylhexyl)phthalate	17	U	17.	330	ug/kg	102		75-117		
Fluoranthene	17	U	17.	170	ug/kg	106		78-116		
Fluorene	17	U	17.	170	ug/kg	103		75-116		
Hexachlorobenzene	17	U	17.	170	ug/kg	100		73-119		
Hexachlorobutadiene	67	U	67.	170	ug/kg	91		65-117		
Hexachlorocyclopentadiene	170		170.	500	ug/kg	87		46-115		
	U									
Hexachloroethane	17	U	17.	170	ug/kg	82		61-109		
Indeno(1,2,3-cd)pyrene	17	U	17.	170	ug/kg	103		64-119		
Isophorone	17	U	17.	170	ug/kg	95		69-110		
1-Methylnaphthalene	17	U	17.	170	ug/kg	92		74-105		
2-Methylnaphthalene	17	U	17.	170	ug/kg	94		69-109		
2-Methylphenol	33	U	33.	170	ug/kg	95		66-110		
4-Methylphenol	33	U	33.	170	ug/kg	91		66-117		
Naphthalene	17	U	17.	170	ug/kg	89		73-106		
2-Nitroaniline	17	U	17.	170	ug/kg	101		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	100		62-109		

*- 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: 10/26/11 at 01:44 PM

Group Number: 1268676

<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>
4-Nitroaniline	67	U	67.	170	ug/kg	73		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	92		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	93		76-111		
4-Nitrophenol	170		170.	500	ug/kg	81		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	90		63-107		
N-Nitrosodimethylamine	33	U	33.	170	ug/kg	81		60-106		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	104		67-141		
Di-n-octylphthalate	17	U	17.	170	ug/kg	111		62-137		
Pentachlorophenol	170		170.	500	ug/kg	88		51-117		
	U									
Phenanthrene	17	U	17.	170	ug/kg	98		77-113		
Phenol	17	U	17.	170	ug/kg	91		58-112		
2-phenoxy-Ethanol	1,700		1,700.	1,700	ug/kg					
	U									
Pyrene	17	U	17.	170	ug/kg	98		75-115		
Tetralin	170		170.	170	ug/kg					
	U									
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	89		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	100		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	105		78-111		
Batch number: 11279SLD026 Sample number(s): 6421288-6421301,6421305-6421311										
Acenaphthene	0.67	U	0.67	1.7	ug/kg	97		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	89		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	94		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	96		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	97		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	103		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	102		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	102		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	104		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	109		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	97		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	104		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	104		68-125		
Dimethylphthalate	6.0	U	6.0	18	ug/kg	99		79-121		
Bis(2-Ethylhexyl)phthalate	6.0	U	6.0	18	ug/kg	116		67-143		
Fluoranthene	0.67	U	0.67	1.7	ug/kg	98		64-120		
Fluorene	0.67	U	0.67	1.7	ug/kg	99		71-120		
Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.7	ug/kg	102		56-134		
1-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	89		72-120		
2-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	88		62-120		
Naphthalene	0.67	U	0.67	1.7	ug/kg	91		67-120		
N-Nitrosodimethylamine	0.67	U	0.67	1.7	ug/kg	87		55-118		
Di-n-octylphthalate	6.0	U	6.0	18	ug/kg	106		68-162		
Phenanthrene	0.67	U	0.67	1.7	ug/kg	93		75-120		
Pyrene	0.67	U	0.67	1.7	ug/kg	94		72-119		
Batch number: 11280SLB026 Sample number(s): 6421299-6421301,6421305-6421311										
N-Nitrosodimethylamine	16.7	U	16.7	33.3	ng/kg	80		70-130		
Batch number: 11274A34A Sample number(s): 6421299-6421301,6421305,6421308-6421311										
9a TPH by EPA 8015B Gas C5-C12	0.2	U	0.2	1.0	mg/kg	71		67-119		
Batch number: 11278B20A Sample number(s): 6421312-6421313										
TPH-GRO S.CA water C5-C12	20	U	20.	50	ug/l	109	109	75-135	0	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

<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: 112760016A	Sample number(s): 6421313								
4-Amino-2,6-Dinitrotoluene	0.30 U	0.30	0.60	ug/l	110	110	80-120	0	30
2-Amino-4,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	99	100	80-120	1	30
2,6-Diamino-4-nitrotoluene	0.20 U	0.20	0.60	ug/l	100	103	50-122	3	30
2,4-Diamino-6-nitrotoluene	0.20 U	0.20	0.60	ug/l	100	103	50-122	3	30
1,3-Dinitrobenzene	0.20 U	0.20	0.60	ug/l	100	100	72-117	0	30
2,4-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	93	94	80-120	1	30
2,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	100	100	80-120	0	30
HMX	0.65 U	0.65	2.0	ug/l	96	96	65-125	0	30
Nitrobenzene	0.20 U	0.20	0.60	ug/l	91	92	75-121	1	30
Nitroglycerin	5.2 U	5.2	15	ug/l	96	96	80-120	0	30
2-Nitrotoluene	0.20 U	0.20	0.60	ug/l	92	94	74-120	2	30
3-Nitrotoluene	0.40 U	0.40	1.2	ug/l	97	100	69-107	3	30
4-Nitrotoluene	0.60 U	0.60	1.2	ug/l	94	96	80-120	2	30
PETN	6.0 U	6.0	18	ug/l	100	100	80-120	0	30
RDX	0.20 U	0.20	0.60	ug/l	92	91	70-125	1	30
Tetryl	0.40 U	0.40	0.60	ug/l	71*	67*	72-141	6	30
1,3,5-Trinitrobenzene	0.20 U	0.20	0.60	ug/l	79	75	53-129	5	30
2,4,6-Trinitrotoluene	0.20 U	0.20	0.60	ug/l	97	98	76-109	1	30
Batch number: 112720027A	Sample number(s): 6421313								
20b Formaldehyde 8315A	10 U	10.	50	ug/l	108		69-130		
Batch number: 112740006A	Sample number(s): 6421299-6421301, 6421305-6421311								
20a Formaldehyde 8315A	600 U	600.	1,500	ug/kg	108		80-126		
Batch number: 112780016A	Sample number(s): 6421288-6421297								
2,4-D	1.2 U	1.2	3.6	ug/kg	106		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	81		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	106		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	114		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	15		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	110		62-170		
MCPA	76 U	76.	250	ug/kg	87		60-130		
MCPP (Mecoprop)	130 U	75.	250	ug/kg	89		54-137		
J									
2,4,5-T	0.082 U	0.082	0.17	ug/kg	104		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	102		68-114		
Batch number: 112830002A	Sample number(s): 6421298								
2,4-D	1.2 U	1.2	3.6	ug/kg	92		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	57		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	84		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	75		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	8*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	110		62-170		
MCPA	76 U	76.	250	ug/kg	74		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	69		54-137		
2,4,5-T	0.10 J	0.082	0.17	ug/kg	116		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	75		68-114		
Batch number: 112740023A	Sample number(s): 6421313								
Aroclor 5432	0.10 U	0.10	0.50	ug/l					
Aroclor 5442	0.10 U	0.10	0.50	ug/l	72	74	35-84	3	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	98	98	51-128	0	30
PCB-1221	0.10 U	0.10	0.50	ug/l					

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

<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>
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	102	106	56-135	4	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					

Batch number: 112790038A

Sample number(s): 6421288-6421301, 6421303-6421311

Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	87	89	36-106	3	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	110		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	125		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: 112790039A

Sample number(s): 6421288-6421298

Aldrin	0.066 U	0.066	0.17	ug/kg	82	79	44-135	4	50
Alpha BHC	0.034 U	0.034	0.17	ug/kg	76	65	38-130	17	50
Beta BHC	0.060 U	0.060	0.17	ug/kg	94	91	56-134	3	50
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	79	79	46-127	0	50
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	118	112	60-137	5	50
p,p-DDE	0.066 U	0.066	0.34	ug/kg	112	111	59-141	1	50
p,p-DDT	0.066 U	0.066	0.34	ug/kg	114	107	54-130	6	50
Delta BHC	0.036 U	0.036	0.17	ug/kg	100	97	55-144	3	50
Dieldrin	0.066 U	0.066	0.34	ug/kg	110	99	65-129	11	50
Endosulfan I	0.044 U	0.044	0.17	ug/kg	71	68	45-123	4	50
Endosulfan II	0.066 U	0.066	0.34	ug/kg	120	109	63-127	9	50
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	129	114	72-138	13	50
Endrin	0.066 U	0.066	0.34	ug/kg	104	99	62-129	6	50
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	100	83	55-132	18	35
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	118	106	69-139	11	50
Heptachlor	0.060 U	0.060	0.17	ug/kg	82	79	43-124	4	50
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	100	97	65-131	3	50
Methoxychlor	0.34 U	0.34	1.7	ug/kg	130*	116	59-125	12	50
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					

Batch number: 112710013A

Sample number(s): 6421313

Diethylene glycol	20 U	20.	200	mg/l	105	115	67-126	9	20
Ethylene glycol	20 U	20.	200	mg/l	95	84	78-136	12	20
Propylene glycol	20 U	20.	200	mg/l	90	80	65-132	12	20

Batch number: 112730033A

Sample number(s): 6421313

Ethanol	200 U	200.	1,000	ug/l	108		78-116		
Isopropanol	200 U	200.	1,000	ug/l	100		75-125		
Methanol	200 U	200.	1,000	ug/l	100		76-122		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

<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: 112760023A	Sample number(s): 6421299-6421301, 6421303-6421311								
Ethanol	100 U	100.	500	ug/kg	98		71-129		
Isopropanol	100 U	100.	500	ug/kg	98		75-125		
Methanol	100 U	100.	500	ug/kg	99		68-129		
Batch number: 112770027A	Sample number(s): 6421299-6421301, 6421305-6421311								
Diethylene glycol	5.0 U	5.0	10	mg/kg	95		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	97		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	86		67-131		
Batch number: 112730012A	Sample number(s): 6421313								
m-Terphenyl	0.080 U	0.080	0.25	mg/l	78	84	61-108	8	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	78	82	75-125	5	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	78	82	63-110	5	20
Batch number: 112740003A	Sample number(s): 6421313								
EFH (C12-C14)	0.10 U	0.10	0.60	mg/l	86	92	63-121	7	30
EFH (C15-C20)	0.10 U	0.10	0.60	mg/l	99	100	72-124	1	30
EFH (C21-C30)	0.10 U	0.10	0.60	mg/l	92	92	64-123	0	30
EFH (C30 - C40)	0.10 U	0.10	0.60	mg/l	93	100	73-124	7	30
EFH (C8-C11)	0.10 U	0.10	0.60	mg/l	74	82	43-107	10	30
Batch number: 112790036A	Sample number(s): 6421299-6421301, 6421303-6421311								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	101		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	106		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	103		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	102		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	87		49-107		
Batch number: 112790037A	Sample number(s): 6421299-6421301, 6421303-6421311								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	100		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		69-109		
Batch number: 112721026001A	Sample number(s): 6421288-6421302, 6421305-6421311								
Antimony	0.0725 U	0.0725	0.196	mg/kg	62		10-224		
Arsenic	0.0784 U	0.0784	0.392	mg/kg	104		78-122		
Beryllium	0.0157 U	0.0157	0.0980	mg/kg	105		80-120		
Cadmium	0.0431 U	0.0431	0.0980	mg/kg	104		81-119		
Chromium	0.118 U	0.118	0.392	mg/kg	113		77-123		
Cobalt	0.0196 U	0.0196	0.0980	mg/kg	101		80-119		
Copper	0.0875 J	0.0784	0.392	mg/kg	107		78-122		
Lead	0.0645 J	0.0100	0.196	mg/kg	103		77-123		
Nickel	0.0980 U	0.0980	0.392	mg/kg	109		80-120		
Silver	0.0139 U	0.0139	0.0980	mg/kg	103		66-134		
Thallium	0.0294 U	0.0294	0.0980	mg/kg	104		75-124		
Vanadium	0.0216 U	0.0216	0.0980	mg/kg	116		76-124		
Zinc	0.549 U	0.549	2.94	mg/kg	108		79-121		
Batch number: 112721026001B	Sample number(s): 6421288-6421302, 6421305-6421311								
Selenium	0.0569 U	0.0569	0.392	mg/kg	108		77-123		
Batch number: 112721026001C	Sample number(s): 6421288-6421302, 6421305-6421311								
Molybdenum	0.0490 U	0.0490	0.0980	mg/kg	103		76-123		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

<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: 112721026001D	Sample number(s): 6421288-6421302, 6421305-6421311								
Barium	0.104 U	0.104	0.392	mg/kg	103		80-120		
Batch number: 112725708001	Sample number(s): 6421288-6421302, 6421305-6421311								
Aluminum	8.39 J	5.87	19.4	mg/kg	143		42-158		
Boron	0.350 U	0.350	4.85	mg/kg	106		66-134		
Calcium	7.16 J	2.43	19.4	mg/kg	107		79-121		
Iron	2.53 U	2.53	19.4	mg/kg	117		51-149		
Lithium	0.60 U	0.60	1.9	mg/kg	102		80-120		
Magnesium	0.427 U	0.427	9.71	mg/kg	120		64-136		
Manganese	0.0466 J	0.0350	0.485	mg/kg	96		78-122		
Phosphorus	1.24 J	0.340	9.71	mg/kg	106		80-120		
Potassium	11.0 U	11.0	48.5	mg/kg	115		69-131		
Sodium	5.78 U	5.78	97.1	mg/kg	105		71-129		
Strontium	0.0262 J	0.0243	0.485	mg/kg	101		81-119		
Tin	1.35 J	0.311	9.71	mg/kg	92		74-126		
Zirconium	0.447 U	0.447	4.85	mg/kg	104		80-120		
Batch number: 112725711001	Sample number(s): 6421288-6421302, 6421305-6421311								
Mercury	0.0067 U	0.0067	0.0955	mg/kg	100		72-128		
Batch number: 112781848003	Sample number(s): 6421313								
Aluminum	0.0801 U	0.0801	0.200	mg/l	99	97	90-112	1	20
Boron	0.0022 U	0.0022	0.0500	mg/l	94	94	89-110	1	20
Calcium	0.0705 U	0.0705	0.200	mg/l	103	103	90-110	0	20
Iron	0.0141 U	0.0141	0.200	mg/l	99	99	90-112	0	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	98	98	90-110	0	20
Magnesium	0.0067 U	0.0067	0.100	mg/l	100	100	90-110	0	20
Manganese	0.00044 U	0.00044	0.0050	mg/l	102	101	90-110	0	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	98	98	90-110	0	20
Potassium	0.0874 U	0.0874	0.500	mg/l	101	101	85-115	0	20
Sodium	0.0647 U	0.0647	1.00	mg/l	96	95	87-114	1	20
Strontium	0.00022 J	0.00022	0.0050	mg/l	100	99	90-110	1	20
Tin	0.0043 U	0.0043	0.0200	mg/l	98	98	90-110	1	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	101	99	90-113	1	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	101	101	90-110	1	20
Batch number: 112785713001	Sample number(s): 6421313								
Mercury	0.000042 J	0.00002 6	0.00020	mg/l	102	107	80-120	5	20
Batch number: 112786050001A	Sample number(s): 6421313								
Antimony	0.00042 U	0.00042	0.0010	mg/l	108	107	87-110	0	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	109	102	86-111	7	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	107	106	90-113	0	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	105	105	90-114	0	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	106	105	90-118	1	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	101	102	87-113	2	20
Copper	0.00038 U	0.00038	0.0020	mg/l	107	107	90-113	0	20
Lead	0.000080 U	0.00008 0	0.0010	mg/l	102	106	90-115	3	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	105	107	90-113	1	20
Silver	0.000098 U	0.00009 8	0.00050	mg/l	107	108	90-115	1	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	97	105	89-116	7	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	103	104	89-116	2	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	106	104	90-116	2	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

<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: 112786050001B Selenium	Sample number(s): 6421313 0.00027 U	0.00027	0.0020	mg/l	110	114	85-114	3	20
Batch number: 112786050001C Molybdenum	Sample number(s): 6421313 0.00025 U	0.00025	0.00050	mg/l	106	105	89-115	1	20
Batch number: 112786050001D Barium	Sample number(s): 6421313 0.00069 U	0.00069	0.0020	mg/l	108	104	88-113	4	20
Batch number: 112845708002 Titanium	Sample number(s): 6421288-6421302, 6421305-6421311 0.0710 U	0.0710	1.00	mg/kg	81		80-120		
Batch number: 11271196901B 11b Anions by 300.0 - Fluoride	Sample number(s): 6421313 0.080 U	0.080	0.10	mg/l	90	90	90-110	0	20
11b Anions by 300.0 - Nitrate	0.050 U	0.050	0.10	mg/l	95	96	90-110	1	20
Batch number: 11271281401A 3b Cr VI by EPA 7199	Sample number(s): 6421313 5.0 U	5.0	10.0	ug/l	101	101	90-110	0	20
Batch number: 11272281101A 7b Perchlorate EPA 314.0	Sample number(s): 6421313 0.70 U	0.70	2.0	ug/l	95	107	85-115	12	20
Batch number: 11276117102B 16b Cyanide by 9012B	Sample number(s): 6421313 0.0050 U	0.0050	0.010	mg/l	104	104	90-110	0	20
Batch number: 11277621203A 7a Perchlorate EPA 314.0	Sample number(s): 6421288-6421297 9.0 U	9.0	30.0	ug/kg	111		85-115		
Batch number: 11277621203B 7a Perchlorate EPA 314.0	Sample number(s): 6421298-6421300, 6421302, 6421305-6421311 9.0 U	9.0	30.0	ug/kg	111		85-115		
Batch number: 11279621201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6421288-6421297 0.80 U	0.80	1.0	mg/kg	95		90-110		
Batch number: 11279621201B 11a Anions by 300.0 - Fluoride	Sample number(s): 6421298-6421300, 6421302, 6421305-6421311 0.80 U	0.80	1.0	mg/kg	95		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	95		90-110		
Batch number: 11280243201A 3a Cr VI by EPA 7199	Sample number(s): 6421288-6421300, 6421302, 6421305-6421311 0.20 U	0.20	1.0	mg/kg	89		80-120		
Batch number: 11273020001A 17b pH by 9040B	Sample number(s): 6421313				100	100	90-110	0	3
Batch number: 11284039402A 17a pH by 9045C	Sample number(s): 6421288-6421296				100		95-105		
Batch number: 11284039402B 17a pH by 9045C	Sample number(s): 6421297-6421299, 6421302, 6421305-6421311 100				100		95-105		
Batch number: 11278162401A 28a Moisture Content by 160.3	Sample number(s): 6421288-6421303				100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Batch number: 11278162401B Moisture Content by 160.3	Sample number(s): 6421305-6421311				100		80-120		

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Quality Control Summary

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Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

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: E112722AA	Sample number(s): 6421313 UNSPK: P422276								
1,4-Dioxane	135	134	73-138	0	30				
Batch number: 11279SLC026	Sample number(s): 6421288-6421301,6421305-6421311 UNSPK: 6421299								
Acenaphthene	98	100	75-115	2	30				
Acenaphthylene	107	110	81-110	3	30				
Aniline	65	71	18-116	8	30				
Anthracene	108	108	75-115	0	30				
Benzidine	21*	25*	35-141	17	30				
Benzo(a)anthracene	106	112	65-122	5	30				
Benzo(a)pyrene	109	114	57-126	4	30				
Benzo(b)fluoranthene	113	112	59-125	1	30				
Benzo(g,h,i)perylene	114	115	59-127	1	30				
Benzo(k)fluoranthene	108	103	56-132	4	30				
Benzoic acid	16	0*	10-173	200*	30				
Benzyl alcohol	96	97	67-115	1	30				
4-Bromophenyl-phenylether	107	107	67-129	0	30				
Butylbenzylphthalate	106	106	73-134	0	30				
Di-n-butylphthalate	109	108	67-123	0	30				
Carbazole	102	103	64-120	1	30				
4-Chloro-3-methylphenol	103	102	62-122	1	30				
4-Chloroaniline	41	62	13-107	42*	30				
bis(2-Chloroethoxy)methane	96	96	75-104	0	30				
bis(2-Chloroethyl)ether	91	94	60-116	2	30				
bis(2-Chloroisopropyl)ether	92	93	55-142	1	30				
2-Chloronaphthalene	89	91	50-141	2	30				
2-Chlorophenol	97	99	73-121	2	30				
4-Chlorophenyl-phenylether	101	102	80-109	1	30				
Chrysene	95	100	62-128	5	30				
Dibenz(a,h)anthracene	115	117	65-125	2	30				
Dibenzofuran	96	98	71-112	2	30				
1,2-Dichlorobenzene	88	88	66-108	0	30				
1,3-Dichlorobenzene	87	85	63-109	2	30				
1,4-Dichlorobenzene	86	85	58-108	0	30				
3,3'-Dichlorobenzidine	53	82	28-109	43*	30				
2,4-Dichlorophenol	101	101	66-123	0	30				
Diethylphthalate	104	104	66-118	0	30				
2,4-Dimethylphenol	99	99	68-118	0	30				
3,5-Dimethylphenol	108	107	71-127	1	30				
Dimethylphthalate	102	102	64-118	1	30				
4,6-Dinitro-2-methylphenol	63	46	11-126	30	30				
2,4-Dinitrophenol	36	20	20-143	56*	30				
2,4-Dinitrotoluene	102	102	56-129	0	30				
2,6-Dinitrotoluene	106	108	69-123	2	30				
1,2-Diphenylhydrazine	103	103	71-129	0	30				
bis(2-Ethylhexyl)phthalate	109	116	63-122	6	30				
Fluoranthene	109	112	73-112	3	30				
Fluorene	104	107	63-121	3	30				
Hexachlorobenzene	106	105	77-114	0	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Sample Matrix Quality Control

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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
Hexachlorobutadiene	94	94	62-120	1	30				
Hexachlorocyclopentadiene	87	76	10-153	14	30				
Hexachloroethane	87	85	57-109	2	30				
Indeno(1,2,3-cd)pyrene	114	116	61-126	2	30				
Isophorone	97	97	73-102	1	30				
1-Methylnaphthalene	94	95	64-122	1	30				
2-Methylnaphthalene	97	96	76-114	1	30				
2-Methylphenol	99	102	75-111	3	30				
4-Methylphenol	93	97	59-123	4	30				
Naphthalene	92	93	72-116	1	30				
2-Nitroaniline	106	108	67-125	2	30				
3-Nitroaniline	101	103	59-122	2	30				
4-Nitroaniline	77	83	41-109	7	30				
Nitrobenzene	94	95	57-125	1	30				
2-Nitrophenol	96	95	56-127	1	30				
4-Nitrophenol	83	85	37-129	2	30				
N-Nitroso-di-n-propylamine	91	94	60-116	3	30				
N-Nitrosodimethylamine	81	81	47-116	1	30				
N-Nitrosodiphenylamine	107	106	71-122	1	30				
Di-n-octylphthalate	120	116	56-126	3	30				
Pentachlorophenol	46	43	28-127	7	30				
Phenanthrene	101	102	65-125	1	30				
Phenol	94	97	58-126	2	30				
Pyrene	101	103	74-126	2	30				
1,2,4-Trichlorobenzene	95	93	72-115	2	30				
2,4,5-Trichlorophenol	102	104	58-129	2	30				
2,4,6-Trichlorophenol	105	107	56-134	2	30				

Batch number: 11279SLD026	Sample number(s): 6421288-6421301,6421305-6421311 UNSPK: 6421299								
Acenaphthene	96	94	63-105	3	30				
Acenaphthylene	90	91	67-114	0	30				
Anthracene	97	96	73-115	2	30				
Benzo(a)anthracene	102	97	59-128	5	30				
Benzo(a)pyrene	105	100	58-142	5	30				
Benzo(b)fluoranthene	103	101	54-163	2	30				
Benzo(g,h,i)perylene	88	77	33-141	13	30				
Benzo(k)fluoranthene	106	104	57-153	3	30				
Butylbenzylphthalate	114	92	57-173	23	30				
Di-n-butylphthalate	117	103	65-148	14	30				
Chrysene	101	95	67-123	7	30				
Dibenz(a,h)anthracene	93	81	22-133	14	30				
Diethylphthalate	103	95	70-136	9	30				
Dimethylphthalate	101	97	74-118	4	30				
Bis(2-Ethylhexyl)phthalate	-27*	-39*	39-167	9	30				
Fluoranthene	105	101	51-149	4	30				
Fluorene	97	97	66-122	1	30				
Indeno(1,2,3-cd)pyrene	92	81	21-143	14	30				
1-Methylnaphthalene	88	88	72-123	1	30				
2-Methylnaphthalene	88	87	64-103	1	30				
Naphthalene	90	88	61-102	3	30				
N-Nitrosodimethylamine	86	277*	48-113	105*	30				
Di-n-octylphthalate	117	104	40-192	12	30				
Phenanthrene	93	94	62-122	0	30				

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Quality Control Summary

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Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Sample Matrix Quality Control

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Pyrene	101	97	51-131	5	30			
Batch number: 11280SLB026	Sample number(s): 6421299-6421301,6421305-6421311 UNSPK: 6421299							
N-Nitrosodimethylamine	134*	100	70-130	29	30			
Batch number: 11274A34A	Sample number(s): 6421299-6421301,6421305,6421308-6421311 UNSPK: 6421299							
9a TPH by EPA 8015B Gas C5-C12	77	77	39-118	9	30			
Batch number: 112720027A	Sample number(s): 6421313 UNSPK: P421360							
20b Formaldehyde 8315A	102	104	80-120	2	30			
Batch number: 112740006A	Sample number(s): 6421299-6421301,6421305-6421311 UNSPK: 6421299							
20a Formaldehyde 8315A	107	109	80-120	2	50			
Batch number: 112780016A	Sample number(s): 6421288-6421297 UNSPK: P418446							
2,4-D	139	106	17-180	27	35			
Dalapon	87	45	10-125	62*	50			
2,4-DB	434*	94	10-201	119*	50			
Dicamba	66	48	10-190	15	50			
Dinoseb	20	19	10-46	5	35			
2,4-DP (Dichlorprop)	87	100	33-178	13	50			
MCPA	20	40	10-213	67*	50			
MCPP (Mecoprop)	53	72	10-184	32	50			
2,4,5-T	49	53	10-156	7	35			
2,4,5-TP	73	76	24-141	3	35			
Batch number: 112830002A	Sample number(s): 6421298 UNSPK: P426110							
2,4-D	47	38	17-180	20	35			
Dalapon	0*	0*	10-125	0	50			
2,4-DB	57	52	10-201	10	50			
Dicamba	52	52	10-190	0	50			
Dinoseb	9*	15	10-46	43*	35			
2,4-DP (Dichlorprop)	82	73	33-178	11	50			
MCPA	126	60	10-213	71*	50			
MCPP (Mecoprop)	44	23	10-184	38	50			
2,4,5-T	12	46	10-156	117*	35			
2,4,5-TP	53	46	24-141	15	35			
Batch number: 112790038A	Sample number(s): 6421288-6421301,6421303-6421311 UNSPK: 6421299							
PCB-1016	100	123	29-146	21	50			
PCB-1260	98	122	39-149	21	50			
Batch number: 112730033A	Sample number(s): 6421313 UNSPK: P421398							
Ethanol	108	104	62-145	4	20			
Isopropanol	96	92	73-131	4	20			
Methanol	103	91	52-159	11	20			
Batch number: 112760023A	Sample number(s): 6421299-6421301,6421303-6421311 UNSPK: 6421299							
Ethanol	85	90	48-130	6	20			
Isopropanol	100	92	12-149	9	20			
Methanol	100	91	43-138	9	20			
Batch number: 112770027A	Sample number(s): 6421299-6421301,6421305-6421311 UNSPK: 6421299							

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Quality Control Summary

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Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Diethylene glycol	12*	16*	59-109	28*	20			
Ethylene glycol	49*	55*	63-107	11	20			
Propylene glycol	55*	59*	63-107	7	20			
Batch number: 112790036A	Sample number(s): 6421299-6421301,6421303-6421311 UNSPK: 6421299							
EFH (C12-C14)	95	101	49-123	5	20			
EFH (C15-C20)	110	91	49-123	13	20			
EFH (C21-C30)	-50*	35*	49-123	22*	20			
EFH (C30 - C40)	-175	-220	49-123	6	20			
	(2)	(2)						
EFH (C8-C11)	90	87	49-123	5	20			
Batch number: 112790037A	Sample number(s): 6421299-6421301,6421303-6421311 UNSPK: 6421299							
m-Terphenyl	91	96	75-125	6	20			
o-Terphenyl	93	99	75-125	6	20			
p-Terphenyl	92	98	75-125	6	20			
Batch number: 112721026001A	Sample number(s): 6421288-6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
Antimony	35*	30*	75-125	14	20	0.0900 J	0.0725 U	200* (1) 20
Arsenic	103	105	75-125	0	20	3.67	3.60	2 20
Beryllium	86	85	75-125	2	20	0.477	0.448	6 (1) 20
Cadmium	102	98	75-125	6	20	0.0864 J	0.0752 J	14 (1) 20
Chromium	90	83	75-125	4	20	14.4	13.5	7 20
Cobalt	93	92	75-125	4	20	4.53	4.60	1 20
Copper	101	89	75-125	9	20	6.82	6.46	5 20
Lead	103	95	75-125	4	20	4.58	4.29	6 20
Nickel	103	93	75-125	7	20	8.91	8.74	2 20
Silver	98	97	75-125	4	20	0.0224 J	0.0229 J	2 (1) 20
Thallium	100	93	75-125	6	20	0.229	0.213	7 (1) 20
Vanadium	91	88	75-125	1	20	29.1	27.8	5 20
Zinc	113 (2)	83 (2)	75-125	5	20	50.5	52.7	4 20
Batch number: 112721026001B	Sample number(s): 6421288-6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
Selenium	93	96	75-125	0	20	0.153 J	0.100 J	42* (1) 20
Batch number: 112721026001C	Sample number(s): 6421288-6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
Molybdenum	92	92	75-125	3	20	0.587	0.401	38* (1) 20
Batch number: 112721026001D	Sample number(s): 6421288-6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
Barium	115 (2)	154 (2)	75-125	4	20	73.0	76.3	4 20
Batch number: 112725708001	Sample number(s): 6421288-6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
Aluminum	361 (2)	988 (2)	75-125	8	20	13,000	12,800	2 20
Boron	94	97	84-115	1	20	6.61	6.25	6 (1) 20
Calcium	-278	-149	75-125	13	20	4,930	3,340	38* 20
	(2)	(2)						
Iron	-889	837 (2)	75-125	10	20	17,400	17,800	2 20
	(2)							
Lithium	97	101	82-114	1	20	22.5	24.0	7 20
Magnesium	100 (2)	279 (2)	75-125	8	20	4,010	4,230	6 20
Manganese	54 (2)	98 (2)	75-125	7	20	247	236	4 20
Phosphorus	75	92	75-125	3	20	339	314	8 20
Potassium	106	125	75-125	4	20	2,550	2,740	7 20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Sample Matrix Quality Control

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u>
Sodium	89	92	75-125	2	20	98.3	91.4 J	7 (1)
Strontium	86	90	75-115	2	20	25.0	15.4	47*
Tin	87	88	80-110	0	20	0.801 J	0.751 J	6 (1)
Zirconium	96	98	81-110	0	20	1.32 J	2.02 J	42* (1)
Batch number: 112725711001	Sample number(s): 6421288-6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
Mercury	102	100	65-135	1	20	0.0068 U	0.0069 U	0 (1)
Batch number: 112845708002	Sample number(s): 6421288-6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
Titanium	205 (2)	230 (2)	75-125	3	20	1,010	1,020	2
Batch number: 11271281401A	Sample number(s): 6421313 UNSPK: P421131 BKG: P421131							
3b Cr VI by EPA 7199	90		59-135		5.0 U	5.0 U	0 (1)	20
Batch number: 11277621203A	Sample number(s): 6421288-6421297 UNSPK: 6421288 BKG: 6421288							
7a Perchlorate EPA 314.0	115		80-120		9.0 U	9.0 U	0 (1)	15
Batch number: 11277621203B	Sample number(s): 6421298-6421300,6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
7a Perchlorate EPA 314.0	113		80-120		9.0 U	9.0 U	0 (1)	15
Batch number: 11279621201A	Sample number(s): 6421288-6421297 UNSPK: 6421288 BKG: 6421288							
11a Anions by 300.0 - Fluoride	44*		80-120		1.9	1.7	11 (1)	20
Batch number: 11279621201B	Sample number(s): 6421298-6421300,6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
11a Anions by 300.0 - Fluoride	61*		80-120		3.5	3.4	4 (1)	20
11a Anions by 300.0 - Nitrate	83		80-120		1.6	1.2 J	28* (1)	20
Batch number: 11280243201A	Sample number(s): 6421288-6421300,6421302,6421305-6421311 UNSPK: 6421299 BKG: 6421299							
3a Cr VI by EPA 7199	86		75-125		0.20 U	0.62 J	200* (1)	20
Batch number: 11284039402A	Sample number(s): 6421288-6421296 BKG: 6421288							
17a pH by 9045C					5.96	5.93	1	3
Batch number: 11284039402B	Sample number(s): 6421297-6421299,6421302,6421305-6421311 BKG: 6421299							
17a pH by 9045C					8.37	8.47	1	3
Batch number: 11278162401A	Sample number(s): 6421288-6421303 BKG: 6421299							
28a Moisture Content by 160.3					4.6	4.8	3	20
Moisture Content by 160.3					4.6	4.8	3	20
Moisture Content by 160.3					4.6	4.8	3	20
Batch number: 11278162401B	Sample number(s): 6421305-6421311 BKG: 6421310							
Moisture Content by 160.3					9.2	8.3	11	20

Surrogate Quality Control

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Quality Control Summary

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Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Surrogate Quality Control

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

Analysis Name: 14b 1,4-Dioxane by 8260B SIM
Batch number: E112722AA
Toluene-d8

6421313	101
Blank	101
LCS	101
MS	101
MSD	101

Limits: 80-120

Analysis Name: 1b Volatile Organics EPA8260B
Batch number: Y112722AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6421313	98	99	99	98
Blank	98	101	99	98
LCS	99	103	100	99
LCSD	100	103	100	99

Limits: 86-118 80-120 88-110 86-115

Analysis Name: 21b NDMA by 1625C
Batch number: 11269WAA026
N-Nitrosodimethylamine-d6

6421313	277*
Blank	135
LCS	150
LCSD	137

Limits: 50-150

Analysis Name: 4b Select SVOC EPA 8270SIM
Batch number: 11274WAB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6421313	92	90	92
Blank	106	99	103
LCS	112	93	94
LCSD	111	92	93

Limits: 40-130 45-130 45-135

Analysis Name: 5b Semivolatiles by EPA 8270C
Batch number: 11276WAC026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6421313	62	35	97	97	98	86
Blank	63	42	94	96	94	85
LCS	77	53	103	108	104	93
LCSD	74	50	92	96	94	83

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Group Number: 1268676

Surrogate Quality Control

Limits:	20-130	20-120	30-130	40-130	45-130	45-135

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11279SLC026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6421288	96	99	90	89	96	93
6421289	94	96	102	89	95	94
6421290	97	99	94	91	96	94
6421291	93	96	95	90	95	93
6421292	97	98	91	91	98	94
6421293	92	92	88	86	91	91
6421294	102	104	96	94	98	93
6421295	96	98	93	90	95	92
6421296	92	95	89	89	92	91
6421297	93	94	86	89	95	93
6421298	91	94	89	86	93	91
6421299	90	93	96	86	92	92
6421300	93	95	106	91	96	95
6421301	95	99	105	91	97	96
6421305	91	93	97	86	94	94
6421306	89	90	74	84	90	89
6421307	92	93	85	87	94	97
6421308	90	92	100	87	96	97
6421309	89	92	81	85	93	90
6421310	91	95	98	88	95	94
6421311	91	93	95	89	97	94
Blank	85	89	98	86	93	93
LCS	90	93	104	88	94	91
MS	93	95	106	91	96	95
MSD	95	99	105	91	97	96

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

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11279SLD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6421288	106	84	85
6421289	100	87	93
6421290	102	87	88
6421291	101	88	91
6421292	98	84	90
6421293	98	86	92
6421294	109	91	93
6421295	102	92	89
6421296	88	79	79
6421297	105	92	95
6421298	99	87	91
6421299	94	85	93
6421300	104	85	92
6421301	103	87	89
6421305	94	85	85
6421306	99	91	91
6421307	97	87	86
6421308	96	87	86
6421309	99	90	88

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Group Number: 1268676

Surrogate Quality Control

6421310	89	83	82
6421311	97	88	94
Blank	87	82	92
LCS	102	86	91
MS	104	85	92
MSD	103	87	89

Limits:	40-130	45-130	45-135

Analysis Name: 21a NDMA by 1625C
Batch number: 11280SLB026
N-Nitrosodimethylamine-
d6

6421299	119
6421300	110
6421301	106
6421305	130
6421306	139
6421307	106
6421308	117
6421309	114
6421310	118
6421311	123
Blank	125
LCS	129
MS	110
MSD	106

Limits: 50-150

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11274A34A
Trifluorotoluene-F

6421299	105
6421300	96
6421301	98
6421305	92
6421308	97
6421309	94
6421310	92
6421311	98
Blank	96
LCS	92
MS	96
MSD	98

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11278B20A
Trifluorotoluene-F

6421312	86
6421313	84
Blank	87

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Surrogate Quality Control

LCS 117
LCSD 115

Limits: 63-135

Analysis Name: 20b Formaldehyde 8315A
Batch number: 112720027A
Butyraldehyde

6421313 94
Blank 90
LCS 98
MS 103
MSD 93

Limits: 45-145

Analysis Name: 20a Formaldehyde 8315A
Batch number: 112740006A
Butyraldehyde

6421299 98
6421300 96
6421301 94
6421305 82
6421306 90
6421307 101
6421308 100
6421309 92
6421310 83
6421311 95
Blank 89
LCS 92
MS 96
MSD 94

Limits: 64-126

Analysis Name: 8b PCBs/PCTs by 8082
Batch number: 112740023A
Tetrachloro-m-xylene Decachlorobiphenyl

6421313 114 83
Blank 110 105
LCS 113 94
LCSD 106 107

Limits: 30-150 45-120

Analysis Name: 15b Energetics by 8330A
Batch number: 112760016A
2-Nitro-m-xylene

6421313 94
Blank 103
LCS 98
LCSD 99

*- Outside of specification

** - This limit was used in 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: 10/26/11 at 01:44 PM

Group Number: 1268676

Surrogate Quality Control

Limits: 50-134

Analysis Name: 13a Herbicides by EPA 8151

Batch number: 112780016A
2,4-Dichlorophenylacetic
acid

6421288	70
6421289	107
6421290	106
6421291	84
6421292	87
6421293	85
6421294	105
6421295	99
6421296	86
6421297	124
Blank	98
LCS	99
MS	100
MSD	96

Limits: 36-156

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 112790038A

Tetrachloro-m-xylene Decachlorobiphenyl

6421288	99	107
6421289	88	98
6421290	96	107
6421291	106	117
6421292	95	102
6421293	100	112
6421294	114	123*
6421295	154*	155*
6421296	88	96
6421297	104	111
6421298	112	119
6421299	152*	135*
6421300	108	105
6421301	132	123*
6421303	110	100
6421304	100	105
6421305	113	107
6421306	103	99
6421307	104	100
6421308	100	97
6421309	104	98
6421310	103	105
6421311	107	84
Blank	111	120
LCS	115	134*
LCSD	122	127*
MS	108	105
MSD	132	123*

*- Outside of specification

** - This limit was used in 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: 10/26/11 at 01:44 PM

Group Number: 1268676

Surrogate Quality Control

Limits: 53-139 45-120

Analysis Name: 12a Pesticides by 8081A

Batch number: 112790039A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6421288	54	110
6421289	57	79
6421290	65	127*
6421291	79	92
6421292	58	85
6421293	59	86
6421294	56	80
6421295	46*	74
6421296	59	84
6421297	61	93
6421298	69	90
Blank	40*	112
LCS	77	127*
LCSD	57	109

Limits: 50-130 20-120

Analysis Name: 13a Herbicides by EPA 8151

Batch number: 112830002A
2,4-Dichlorophenylacetic
acid

6421298	129
Blank	86
LCS	90
MS	61
MSD	49

Limits: 36-156

Analysis Name: 19b Glycols by 8015B

Batch number: 112710013A
Tetramethylene glycol

6421313	122
Blank	117
LCS	106
LCSD	107

Limits: 29-157

Analysis Name: 22b Terphenyls by 8015B

Batch number: 112730012A
n-Triacontane-d62

6421313	62
Blank	67
LCS	59
LCSD	62

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/26/11 at 01:44 PM

Group Number: 1268676

Surrogate Quality Control

Limits: 17-138

Analysis Name: 18b Alcohols by 8015B
Batch number: 112730033A
Acetone

6421313	100
Blank	106
LCS	100
MS	99
MSD	99

Limits: 54-147

Analysis Name: 9b TPH by EPA 8015B Oil/Diesel
Batch number: 112740003A
Chlorobenzene Orthoterphenyl

6421313	79	91
Blank	80	91
LCS	110	98
LCSD	117	101

Limits: 28-152 52-131

Analysis Name: 18a Alcohols by 8015B
Batch number: 112760023A
Acetone

6421299	102
6421300	99
6421301	93
6421303	98
6421304	103
6421305	89
6421306	96
6421307	91
6421308	97
6421309	90
6421310	93
6421311	97
Blank	101
LCS	99
MS	99
MSD	93

Limits: 42-138

Analysis Name: 19a Glycols by 8015B
Batch number: 112770027A
Tetramethylene glycol

6421299	77
6421300	79
6421301	79
6421305	81
6421306	78

*- Outside of specification

** - This limit was used in 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: 10/26/11 at 01:44 PM

Group Number: 1268676

Surrogate Quality Control

6421307 79
6421308 78
6421309 79
6421310 78
6421311 79
Blank 90
LCS 91
MS 79
MSD 79

Limits: 29-137

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 112790036A

	Chlorobenzene	Orthoterphenyl
6421299	84	91
6421300	90	92
6421301	86	93
6421303	76	88
6421304	85	89
6421305	81	89
6421306	85	91
6421307	77	88
6421308	79	90
6421309	83	99
6421310	82	93
6421311	88	103
Blank	84	90
LCS	87	93
MS	90	92
MSD	86	93

Limits: 37-125 47-145

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112790037A
n-Triacontane-d62

6421299 72
6421300 68
6421301 69
6421303 74
6421304 69
6421305 79
6421306 74
6421307 67
6421308 67
6421309 75
6421310 73
6421311 69
Blank 68
LCS 67
MS 68
MSD 69

Limits: 19-152

*- Outside of specification

** - This limit was used in 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: 10/26/11 at 01:44 PM

Group Number: 1268676

Surrogate Quality Control

*- Outside of specification

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

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

acc# 13013 Cp# 1268676

Sample# 6421233-313

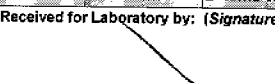
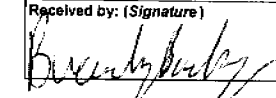
CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 6010/6020/BA7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>Michael G. [Signature]</i>																		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-004-SA5DS-SS-0.0-0.5	9/27/11	1415	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-004-SA5DS-SS-0.0-0.5	9/27/11	1415	SOIL	NONE	1-SS Sleeve			X	X									
SL-005-SA5DS-SS-0.0-0.5	9/27/11	1350	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-005-SA5DS-SS-0.0-0.5	9/27/11	1350	SOIL	NONE	1-SS Sleeve			X	X									
SL-006-SA5DS-SS-0.0-0.5	9/27/11	1130	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-006-SA5DS-SS-0.0-0.5	9/27/11	1130	SOIL	NONE	1-SS Sleeve			X	X									
SL-019-SA5DS-SS-0.0-0.5	9/27/11	1045	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-019-SA5DS-SS-0.0-0.5	9/27/11	1045	SOIL	NONE	1-SS Sleeve			X	X									
SL-020-SA5DS-SS-0.0-0.5	9/27/11	1110	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-020-SA5DS-SS-0.0-0.5	9/27/11	1110	SOIL	NONE	1-SS Sleeve			X	X									
SL-021-SA5DS-SS-0.0-0.5	9/27/11	1150	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-021-SA5DS-SS-0.0-0.5	9/27/11	1150	SOIL	NONE	1-SS Sleeve			X	X									
SL-022-SA5DS-SS-0.0-0.5	9/27/11	1440	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-022-SA5DS-SS-0.0-0.5	9/27/11	1440	SOIL	NONE	1-SS Sleeve			X	X									
SL-023-SA5DS-SS-0.0-0.5	9/27/11	0915	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-023-SA5DS-SS-0.0-0.5	9/27/11	0915	SOIL	NONE	1-SS Sleeve			X	X									
SL-024-SA5DS-SS-0.0-0.5	9/27/11	0845	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-024-SA5DS-SS-0.0-0.5	9/27/11	0845	SOIL	NONE	1-SS Sleeve			X	X									
SL-025-SA5DS-SS-0.0-0.5	9/27/11	0730	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-025-SA5DS-SS-0.0-0.5	9/27/11	0730	SOIL	NONE	1-SS Sleeve			X	X									
SL-038-SA5DS-SS-0.0-0.5	9/27/11	1500	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-038-SA5DS-SS-0.0-0.5	9/27/11	1500	SOIL	NONE	1-SS Sleeve			X	X									
Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 09/27/2011 / 1630	Received for Laboratory by: (Signature)										Laboratory: Lancaster Laboratories, Inc.						
Received by: (Signature) <i>[Signature]</i>	Date/Time 9-28-11 900	Airbill No.(s) 8767 9858 3450; 8767 9858 3461 8767 9858 3472; 8767 9858 3483										NOTE: DO NOT ANALYZE SAMPLES FOR SL-003-SA5DS-SS-0.0-0.5. IT WAS COLLECTED IN ERROR						

acc#13013 Cp#1363676

sample#G421253-313

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels § Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 6010/6020/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8062	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8850 (10%)	TPH-GRO EPA 8015B §	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B		**Dowanol EPA 8270
								SL-103-SA7-SB-4.5MS	9/27/11	0835	SOIL	NONE	6-Encores										X					
		SL-103-SA7-SB-4.0-5.0MS	9/27/11	0840	SOIL	NONE	9-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	MS/MSD sample
		SL-103-SA7-SB-9.5	9/27/11	0850	SOIL	NONE	2-Encores										X											
		SL-103-SA7-SB-9.0-10.0	9/27/11	0855	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X				X	X	X	
		SL-104-SA7-SB-4.5	9/27/11	1230	SOIL	NONE	2-Encores										X							X	X	X	X	
		SL-104-SA7-SB-4.0-5.0	9/27/11	1235	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	
		SL-104-SA7-SB-9.5	9/27/11	1240	SOIL	NONE	2-Encores										X											
		SL-104-SA7-SB-9.0-10.0	9/27/11	1245	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	
		SL-105-SA7-SB-4.5	9/27/11	1440	SOIL	NONE	2-Encores										X											
		SL-105-SA7-SB-4.0-5.0	9/27/11	1445	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	
		SL-172-SA7-SB-4.5	9/27/11	1030	SOIL	NONE	2-Encores										X							X	X	X	X	
		SL-172-SA7-SB-4.0-5.0	9/27/11	1035	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	
		SL-172-SA7-SB-9.5	9/27/11	1040	SOIL	NONE	2-Encores										X											
		SL-172-SA7-SB-9.0-10.0	9/27/11	1045	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	
		DUP-08-SA7-QC-092711	9/27/11	0845	SOIL	NONE	2-Encores										X											
		DUP-08-SA7-QC-092711	9/27/11	0845	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	
		TB-092711	9/27/11	1430	WATER	NONE	2-40mL vials										X											
Relinquished by: (Signature) 		Date/Time 09/27/2011 / 1630		Received for Laboratory by: (Signature) 				Laboratory: Lancaster Laboratories, Inc.																				
Received by: (Signature) 		Date/Time 9/28/11 900		Airbill No.(s) 8767 9858 3450; 8767 9858 3461 8767 9858 3472; 8767 9858 3483																								

acc#13013 Cp#1268676 sample# 6421258-313

CHAIN OF CUSTODY RECORD

CDM						SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS						VOCs		SECONDARY FOR ALL LOCATIONS						Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 155.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) and Subarea 6 (SA7), report TetraIn under EPA Method 8270C.																										
Samples: Signatures:																										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 60106C/2082/741A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chroma EPA 7109	*pH EPA 8045C/8040B	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod	**Nitrate EPA 300.0	**Formaldehyde EPA 8315A	**% NDMA EPA 1625C	**Enthalpies EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Dowanol EPA 8270
EB-SA7-SB-092711	09.27.11	1300	WATER	NONE	10-1 liter ambers			X	X	X							X									X
EB-SA7-SB-092711	09.27.11	1300	WATER	NONE	1-500 mL poly		X				X	X	X													
EB-SA7-SB-092711	09.27.11	1300	WATER	HNO3	1-500 mL poly	X																				
EB-SA7-SB-092711	09.27.11	1300	WATER	NaOH	1-500 mL poly																	X				
EB-SA7-SB-092711	09.27.11	1300	WATER	NONE	2-125 mL ambers													X								
EB-SA7-SB-092711	09.27.11	1300	WATER	HCL	11-40 mL vials								X	X	X										X	
EB-SA7-SB-092711	09.27.11	1300	WATER	NONE	4-40 mL vials												X						X			
Relinquished by: (Signature)						Date/Time: 09/27/2011 / 1630						Received for Laboratory by: (Signature)						Laboratory: Lancaster Laboratories, Inc.								
Received by: (Signature)						Date/Time: 9-28-11 900						Airbill No.(s): 8767 9858 3450; 8767 9858 3461; 8767 9858 3472; 8767 9858 3483														

Nicole Maljovec

From: Bloisa, Peggy [BloisaMJ@cdm.com]

Sent: Friday, September 30, 2011 2:22 PM

To: Nicole Maljovec

Cc: Hartman, Pamela

Subject: Error on SSFL COC dated 9/27/11

Attachments: COC_09_27_11 revised.xlsx

Found an error on my COC dated 9.27.11. Please change sample number DUP-08-SA7-QC-092711 to read as DUP-09-SA7-QC-092711. See attached revised COC.

Thanks! Peggy

Peggy Bloisa, P.G.

CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |

| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

9/30/2011

Nicole Maljovec

From: Bloisa, Peggy [BloisaMJ@cdm.com]
Sent: Thursday, September 29, 2011 5:30 PM
To: Nicole Maljovec
Subject: RE: SSFL COCs 9/27- encore issue for SL-104 @4.5 & 9.5

That is strange. My bad for missing that labeling error! Well, neither you nor I have any way of knowing which depth the filled encores are from, so I guess that we have no choice but to not analyze the ones that are filled. I will cross both of those samples off my COC.

Thanks for letting me know. Peggy

From: Nicole Maljovec [mailto:nmaljovec@lancasterlabs.com]
Sent: Thursday, September 29, 2011 2:14 PM
To: Bloisa, Peggy
Subject: FW: SSFL COCs 9/27- encore issue for SL-104 @4.5 & 9.5
Importance: High

Hi Peggy,
I apologize for not sending this to you yesterday. I have a two part issue for you.

Part 1: We received two encore bags labeled SL-104-SA7-SB-4.5 with a collection date of 9/27/11 and time of 12:30. The only difference on the label is one is in blank ink and the other is in blue ink. We did not receive any encores for SL-104-SB-9.5, so we assume of these belongs to 9.5.

Part 2: We attempted to prep both bags today to meet the holding time and discovered that the SL-104@4.5 bag with blue ink is empty. The encores in the blank ink bag have been prepped and are on hold until the identity is determined.

What do you want to do with this one?

Thanks!
Nicole

From: Bloisa, Peggy [mailto:BloisaMJ@cdm.com]
Sent: Tuesday, September 27, 2011 7:33 PM
To: Nicole Maljovec; SA Env Entry
Cc: Burgess, Todd; Zakowski, Cherie; Laura Rainey; Hartman, Pamela
Subject: SSFL COCs for 9/26 and 9/27

Attached is today's COC and a revised COC for yesterday 9/26. The sample shown as SL-021-002-SA5DS-SS-0.0-0.5 collected at 1505 as shown on yesterdays COC should have been labeled as SL-001. The "real" SL-021 was sampled today.

Peggy

Peggy Bloisa, P.G.
CDM
| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |
| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

9/30/2011

Explanation of Symbols and Abbreviations

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

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 17, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/28/2011

Group Number: 1268679

SDG: DX143

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-004-SA5DS-SS-0.0-0.5 Soil
SL-005-SA5DS-SS-0.0-0.5 Soil
SL-006-SA5DS-SS-0.0-0.5 Soil
SL-019-SA5DS-SS-0.0-0.5 Soil
SL-020-SA5DS-SS-0.0-0.5 Soil
SL-021-SA5DS-SS-0.0-0.5 Soil
SL-022-SA5DS-SS-0.0-0.5 Soil
SL-023-SA5DS-SS-0.0-0.5 Soil
SL-024-SA5DS-SS-0.0-0.5 Soil
SL-025-SA5DS-SS-0.0-0.5 Soil
SL-038-SA5DS-SS-0.0-0.5 SoilLancaster Labs (LLI) #6421323
6421324
6421325
6421326
6421327
6421328
6421329
6421330
6421331
6421332
6421333

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

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

Attn: Todd Burgesser

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

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

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Page 1 of 4

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421323
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4307 SDG#: DX143-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	1.7	0.50	0.50	1

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

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421323
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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Chantilly VA 20151

X4307 SDG#: DX143-07

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	0.148 J	0.0336	0.972	1
11031	12378-PeCDD	40321-76-4	0.412 J	0.0379	4.86	1
11031	123478-HxCDD	39227-28-6	0.224 J	0.0423	4.86	1
11031	123678-HxCDD	57653-85-7	0.749 JB	0.0444	4.86	1
11031	123789-HxCDD	19408-74-3	0.802 JB	0.0428	4.86	1
11031	1234678-HpCDD	35822-46-9	7.30 B	0.0395	4.86	1
11031	OCDD	3268-87-9	69.4 B	0.0518	9.72	1
11031	2378-TCDF	51207-31-9	0.339 JQ	0.0713	0.972	1
11031	12378-PeCDF	57117-41-6	0.371 JB	0.0369	4.86	1
11031	23478-PeCDF	57117-31-4	0.944 JB	0.0358	4.86	1
11031	123478-HxCDF	70648-26-9	0.345 JB	0.0339	4.86	1
11031	123678-HxCDF	57117-44-9	0.350 JB	0.0288	4.86	1
11031	123789-HxCDF	72918-21-9	0.259 JB	0.0315	4.86	1
11031	234678-HxCDF	60851-34-5	0.373 JB	0.0287	4.86	1
11031	1234678-HpCDF	67562-39-4	1.37 JB	0.0215	4.86	1
11031	1234789-HpCDF	55673-89-7	0.151 JBQ	0.0337	4.86	1
11031	OCDF	39001-02-0	3.08 JB	0.0512	9.72	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421323
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

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Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4307 SDG#: DX143-07

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



Analysis Report

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Sample Description: SL-004-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421323
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

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Chantilly VA 20151

X4307 SDG#: DX143-07

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 10:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421324
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4308 SDG#: DX143-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	1.5	0.50	0.50	1

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

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421324
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4308 SDG#: DX143-08

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	0.115 J	0.0376	0.994	1
11031	12378-PeCDD	40321-76-4	0.369 J	0.0371	4.97	1
11031	123478-HxCDD	39227-28-6	0.193 JQ	0.0410	4.97	1
11031	123678-HxCDD	57653-85-7	0.747 JB	0.0402	4.97	1
11031	123789-HxCDD	19408-74-3	0.957 JB	0.0443	4.97	1
11031	1234678-HpCDD	35822-46-9	4.04 JB	0.0339	4.97	1
11031	OCDD	3268-87-9	41.3 B	0.0459	9.94	1
11031	2378-TCDF	51207-31-9	0.133 J	0.0510	0.994	1
11031	12378-PeCDF	57117-41-6	0.429 JB	0.0308	4.97	1
11031	23478-PeCDF	57117-31-4	0.691 JB	0.0293	4.97	1
11031	123478-HxCDF	70648-26-9	0.312 JB	0.0339	4.97	1
11031	123678-HxCDF	57117-44-9	0.277 JB	0.0294	4.97	1
11031	123789-HxCDF	72918-21-9	0.298 JBQ	0.0346	4.97	1
11031	234678-HxCDF	60851-34-5	0.240 JB	0.0299	4.97	1
11031	1234678-HpCDF	67562-39-4	0.908 JB	0.0213	4.97	1
11031	1234789-HpCDF	55673-89-7	0.0925 JB	0.0343	4.97	1
11031	OCDF	39001-02-0	1.59 JB	0.0533	9.94	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421324
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4308 SDG#: DX143-08

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



Analysis Report

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Sample Description: SL-005-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421324
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 13:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4308 SDG#: DX143-08

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 11:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421325
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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Chantilly VA 20151

X4309 SDG#: DX143-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	1.8	0.50	0.50	1

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

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421325
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4309 SDG#: DX143-09

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	0.0400 JQ	0.0374	1.01	1
11031	12378-PeCDD	40321-76-4	0.287 J	0.0405	5.07	1
11031	123478-HxCDD	39227-28-6	0.155 JQ	0.0445	5.07	1
11031	123678-HxCDD	57653-85-7	1.09 JBQ	0.0454	5.07	1
11031	123789-HxCDD	19408-74-3	1.30 JB	0.0458	5.07	1
11031	1234678-HpCDD	35822-46-9	5.77 B	0.0377	5.07	1
11031	OCDD	3268-87-9	59.4 B	0.0559	10.1	1
11031	2378-TCDF	51207-31-9	0.337 J	0.0713	1.01	1
11031	12378-PeCDF	57117-41-6	0.305 JB	0.0396	5.07	1
11031	23478-PeCDF	57117-31-4	0.815 JB	0.0397	5.07	1
11031	123478-HxCDF	70648-26-9	0.472 JB	0.0401	5.07	1
11031	123678-HxCDF	57117-44-9	0.273 JBQ	0.0336	5.07	1
11031	123789-HxCDF	72918-21-9	0.464 JB	0.0382	5.07	1
11031	234678-HxCDF	60851-34-5	0.277 JB	0.0330	5.07	1
11031	1234678-HpCDF	67562-39-4	1.12 JB	0.0223	5.07	1
11031	1234789-HpCDF	55673-89-7	0.0934 JBQ	0.0389	5.07	1
11031	OCDF	39001-02-0	2.23 JB	0.0509	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	56	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
 SSFL Area IV Collocated Soil Sampling
 SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421325
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4309 SDG#: DX143-09

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



Analysis Report

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Page 4 of 4

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421325
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4309 SDG#: DX143-09

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 12:25	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421326
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4310 SDG#: DX143-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.7	0.50	0.50	1

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

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421326
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4310 SDG#: DX143-10

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	0.0420 U	0.0420	1.00	1
11031	12378-PeCDD	40321-76-4	0.115 JQ	0.0387	5.02	1
11031	123478-HxCDD	39227-28-6	0.0878 JQ	0.0384	5.02	1
11031	123678-HxCDD	57653-85-7	0.633 JB	0.0374	5.02	1
11031	123789-HxCDD	19408-74-3	0.929 JB	0.0381	5.02	1
11031	1234678-HpCDD	35822-46-9	3.67 JB	0.0376	5.02	1
11031	OCDD	3268-87-9	34.3 B	0.0493	10.0	1
11031	2378-TCDF	51207-31-9	0.176 JQ	0.0660	1.00	1
11031	12378-PeCDF	57117-41-6	0.231 JB	0.0379	5.02	1
11031	23478-PeCDF	57117-31-4	0.146 JBQ	0.0392	5.02	1
11031	123478-HxCDF	70648-26-9	0.364 JB	0.0347	5.02	1
11031	123678-HxCDF	57117-44-9	0.142 JB	0.0293	5.02	1
11031	123789-HxCDF	72918-21-9	0.504 JB	0.0354	5.02	1
11031	234678-HxCDF	60851-34-5	0.168 JB	0.0307	5.02	1
11031	1234678-HpCDF	67562-39-4	0.730 JB	0.0243	5.02	1
11031	1234789-HpCDF	55673-89-7	0.0584 JBQ	0.0427	5.02	1
11031	OCDF	39001-02-0	1.48 JB	0.0536	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421326
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4310 SDG#: DX143-10

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

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



Analysis Report

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Page 4 of 4

Sample Description: SL-019-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421326
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4310 SDG#: DX143-10

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 13:22	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421327
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

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Chantilly VA 20151

X4311 SDG#: DX143-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.4	0.50	0.50	1

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

Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421327
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4311 SDG#: DX143-11

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	0.0367 U	0.0367	1.00	1
11031	12378-PeCDD	40321-76-4	0.144 JQ	0.0361	5.02	1
11031	123478-HxCDD	39227-28-6	0.0998 J	0.0417	5.02	1
11031	123678-HxCDD	57653-85-7	0.777 JB	0.0403	5.02	1
11031	123789-HxCDD	19408-74-3	0.958 JB	0.0371	5.02	1
11031	1234678-HpCDD	35822-46-9	5.45 B	0.0411	5.02	1
11031	OCDD	3268-87-9	72.6 B	0.0551	10.0	1
11031	2378-TCDF	51207-31-9	0.218 J	0.0619	1.00	1
11031	12378-PeCDF	57117-41-6	0.187 JBQ	0.0338	5.02	1
11031	23478-PeCDF	57117-31-4	0.0954 JBQ	0.0337	5.02	1
11031	123478-HxCDF	70648-26-9	0.166 JBQ	0.0374	5.02	1
11031	123678-HxCDF	57117-44-9	0.212 JBQ	0.0319	5.02	1
11031	123789-HxCDF	72918-21-9	0.330 JBQ	0.0382	5.02	1
11031	234678-HxCDF	60851-34-5	0.233 JB	0.0328	5.02	1
11031	1234678-HpCDF	67562-39-4	1.14 JB	0.0195	5.02	1
11031	1234789-HpCDF	55673-89-7	0.116 JBQ	0.0343	5.02	1
11031	OCDF	39001-02-0	2.43 JB	0.0534	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
 SSFL Area IV Collocated Soil Sampling
 SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421327
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4311 SDG#: DX143-11

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



Analysis Report

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Sample Description: SL-020-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421327
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:10

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4311 SDG#: DX143-11

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 14:18	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421328
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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Chantilly VA 20151

X4312 SDG#: DX143-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.6	0.50	0.50	1

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

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421328
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4312 SDG#: DX143-12

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	0.0407 JQ	0.0308	0.987	1
11031	12378-PeCDD	40321-76-4	0.113 JQ	0.0289	4.93	1
11031	123478-HxCDD	39227-28-6	0.0334 JQ	0.0328	4.93	1
11031	123678-HxCDD	57653-85-7	0.622 JB	0.0326	4.93	1
11031	123789-HxCDD	19408-74-3	0.785 JB	0.0285	4.93	1
11031	1234678-HpCDD	35822-46-9	2.37 JB	0.0300	4.93	1
11031	OCDD	3268-87-9	26.2 B	0.0345	9.87	1
11031	2378-TCDF	51207-31-9	0.143 JQ	0.0393	0.987	1
11031	12378-PeCDF	57117-41-6	0.148 JBQ	0.0217	4.93	1
11031	23478-PeCDF	57117-31-4	0.260 JBQ	0.0251	4.93	1
11031	123478-HxCDF	70648-26-9	0.0833 JBQ	0.0297	4.93	1
11031	123678-HxCDF	57117-44-9	0.109 JBQ	0.0239	4.93	1
11031	123789-HxCDF	72918-21-9	0.400 JB	0.0275	4.93	1
11031	234678-HxCDF	60851-34-5	0.138 JB	0.0225	4.93	1
11031	1234678-HpCDF	67562-39-4	0.537 JB	0.0171	4.93	1
11031	1234789-HpCDF	55673-89-7	0.0356 JBQ	0.0310	4.93	1
11031	OCDF	39001-02-0	1.11 JB	0.0554	9.87	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	49	26 - 152
13C12-123678-HxCDF	58	26 - 123
13C12-234678-HxCDF	60	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	48	26 - 138
13C12-OCDF	44	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
 SSFL Area IV Collocated Soil Sampling
 SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421328
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4312 SDG#: DX143-12

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



Analysis Report

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Page 4 of 4

Sample Description: SL-021-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421328
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 11:50

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

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Chantilly VA 20151

X4312 SDG#: DX143-12

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 15:15	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421329
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4313 SDG#: DX143-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.8	0.50	0.50	1

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

Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421329
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4313 SDG#: DX143-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0357 U	0.0357	0.997	1
11031	12378-PeCDD	40321-76-4	0.134 J	0.0351	4.99	1
11031	123478-HxCDD	39227-28-6	0.126 JQ	0.0370	4.99	1
11031	123678-HxCDD	57653-85-7	0.721 JBQ	0.0367	4.99	1
11031	123789-HxCDD	19408-74-3	0.947 JB	0.0351	4.99	1
11031	1234678-HpCDD	35822-46-9	5.45 B	0.0385	4.99	1
11031	OCDD	3268-87-9	83.0 B	0.0483	9.97	1
11031	2378-TCDF	51207-31-9	0.247 JQ	0.0488	0.997	1
11031	12378-PeCDF	57117-41-6	0.169 JBQ	0.0285	4.99	1
11031	23478-PeCDF	57117-31-4	0.172 JB	0.0295	4.99	1
11031	123478-HxCDF	70648-26-9	0.323 JB	0.0380	4.99	1
11031	123678-HxCDF	57117-44-9	0.208 JBQ	0.0345	4.99	1
11031	123789-HxCDF	72918-21-9	0.413 JB	0.0316	4.99	1
11031	234678-HxCDF	60851-34-5	0.194 JB	0.0263	4.99	1
11031	1234678-HpCDF	67562-39-4	1.30 JB	0.0203	4.99	1
11031	1234789-HpCDF	55673-89-7	0.189 JBQ	0.0282	4.99	1
11031	OCDF	39001-02-0	2.47 JB	0.0465	9.97	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	60	21 - 178
13C12-123478-HxCDF	46	26 - 152
13C12-123678-HxCDF	51	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	66	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421329
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4313 SDG#: DX143-13

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

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



Analysis Report

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Sample Description: SL-022-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421329
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 14:40

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4313 SDG#: DX143-13

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 16:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421330
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4314 SDG#: DX143-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.9	0.50	0.50	1

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

Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421330
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4314 SDG#: DX143-14

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	0.0367 U	0.0367	0.994	1
11031	12378-PeCDD	40321-76-4	0.130 J	0.0376	4.97	1
11031	123478-HxCDD	39227-28-6	0.100 JQ	0.0405	4.97	1
11031	123678-HxCDD	57653-85-7	0.462 JBQ	0.0384	4.97	1
11031	123789-HxCDD	19408-74-3	0.524 JB	0.0405	4.97	1
11031	1234678-HpCDD	35822-46-9	3.76 JB	0.0385	4.97	1
11031	OCDD	3268-87-9	35.2 B	0.0491	9.94	1
11031	2378-TCDF	51207-31-9	0.193 JQ	0.0549	0.994	1
11031	12378-PeCDF	57117-41-6	0.248 JB	0.0331	4.97	1
11031	23478-PeCDF	57117-31-4	0.228 JB	0.0331	4.97	1
11031	123478-HxCDF	70648-26-9	0.255 JBQ	0.0348	4.97	1
11031	123678-HxCDF	57117-44-9	0.167 JBQ	0.0300	4.97	1
11031	123789-HxCDF	72918-21-9	0.295 JBQ	0.0336	4.97	1
11031	234678-HxCDF	60851-34-5	0.189 JB	0.0296	4.97	1
11031	1234678-HpCDF	67562-39-4	0.770 JBQ	0.0194	4.97	1
11031	1234789-HpCDF	55673-89-7	0.101 JBQ	0.0332	4.97	1
11031	OCDF	39001-02-0	1.73 JB	0.0547	9.94	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	67	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	62	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421330
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4314 SDG#: DX143-14

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

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



Analysis Report

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Sample Description: SL-023-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421330
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

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Chantilly VA 20151

X4314 SDG#: DX143-14

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 17:08	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421331
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

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X4315 SDG#: DX143-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.6	0.50	0.50	1

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

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421331
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4315 SDG#: DX143-15

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	0.0371 U	0.0371	1.01	1
11031	12378-PeCDD	40321-76-4	0.169 JQ	0.0384	5.04	1
11031	123478-HxCDD	39227-28-6	0.134 JQ	0.0442	5.04	1
11031	123678-HxCDD	57653-85-7	0.313 JBQ	0.0423	5.04	1
11031	123789-HxCDD	19408-74-3	0.347 JB	0.0450	5.04	1
11031	1234678-HpCDD	35822-46-9	3.77 JB	0.0395	5.04	1
11031	OCDD	3268-87-9	39.0 B	0.0460	10.1	1
11031	2378-TCDF	51207-31-9	0.223 JQ	0.0578	1.01	1
11031	12378-PeCDF	57117-41-6	0.227 JBQ	0.0336	5.04	1
11031	23478-PeCDF	57117-31-4	0.338 JBQ	0.0355	5.04	1
11031	123478-HxCDF	70648-26-9	0.112 JB	0.0359	5.04	1
11031	123678-HxCDF	57117-44-9	0.123 JBQ	0.0292	5.04	1
11031	123789-HxCDF	72918-21-9	0.0920 JB	0.0371	5.04	1
11031	234678-HxCDF	60851-34-5	0.126 JB	0.0316	5.04	1
11031	1234678-HpCDF	67562-39-4	0.824 JB	0.0213	5.04	1
11031	1234789-HpCDF	55673-89-7	0.0556 JBQ	0.0441	5.04	1
11031	OCDF	39001-02-0	2.18 JB	0.0675	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421331
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4315 SDG#: DX143-15

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



Analysis Report

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Page 4 of 4

Sample Description: SL-024-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421331
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 08:45

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4315 SDG#: DX143-15

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 18:04	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421332
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

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Reported: 10/17/2011 13:48

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X4316 SDG#: DX143-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	2.0	0.50	0.50	1

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

Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421332
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

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X4316 SDG#: DX143-16

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	0.0797 JQ	0.0362	0.985	1
11031	12378-PeCDD	40321-76-4	0.227 JQ	0.0369	4.92	1
11031	123478-HxCDD	39227-28-6	0.142 J	0.0380	4.92	1
11031	123678-HxCDD	57653-85-7	0.359 JB	0.0379	4.92	1
11031	123789-HxCDD	19408-74-3	0.355 JB	0.0336	4.92	1
11031	1234678-HpCDD	35822-46-9	3.66 JB	0.0367	4.92	1
11031	OCDD	3268-87-9	35.4 B	0.0379	9.85	1
11031	2378-TCDF	51207-31-9	0.458 J	0.0671	0.985	1
11031	12378-PeCDF	57117-41-6	0.329 JBQ	0.0382	4.92	1
11031	23478-PeCDF	57117-31-4	0.773 JBQ	0.0405	4.92	1
11031	123478-HxCDF	70648-26-9	0.589 JB	0.0411	4.92	1
11031	123678-HxCDF	57117-44-9	0.234 JB	0.0353	4.92	1
11031	123789-HxCDF	72918-21-9	0.219 JBQ	0.0438	4.92	1
11031	234678-HxCDF	60851-34-5	0.201 JBQ	0.0357	4.92	1
11031	1234678-HpCDF	67562-39-4	0.771 JB	0.0182	4.92	1
11031	1234789-HpCDF	55673-89-7	0.120 JBQ	0.0358	4.92	1
11031	OCDF	39001-02-0	1.39 JB	0.0502	9.85	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	56	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
 SSFL Area IV Collocated Soil Sampling
 SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421332
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

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X4316 SDG#: DX143-16

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



Analysis Report

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Sample Description: SL-025-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-025-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421332
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4316 SDG#: DX143-16

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 19:01	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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



Analysis Report

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

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Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421333
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4317 SDG#: DX143-17*

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

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

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421333
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4317 SDG#: DX143-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0367 JQ	0.0312	1.02	1
11031	12378-PeCDD	40321-76-4	0.161 J	0.0321	5.09	1
11031	123478-HxCDD	39227-28-6	0.0632 JQ	0.0336	5.09	1
11031	123678-HxCDD	57653-85-7	0.408 JBQ	0.0331	5.09	1
11031	123789-HxCDD	19408-74-3	0.633 JB	0.0317	5.09	1
11031	1234678-HpCDD	35822-46-9	2.06 JB	0.0327	5.09	1
11031	OCDD	3268-87-9	23.9 B	0.0393	10.2	1
11031	2378-TCDF	51207-31-9	0.0661 JQ	0.0428	1.02	1
11031	12378-PeCDF	57117-41-6	0.281 JBQ	0.0245	5.09	1
11031	23478-PeCDF	57117-31-4	0.237 JB	0.0262	5.09	1
11031	123478-HxCDF	70648-26-9	0.297 JBQ	0.0290	5.09	1
11031	123678-HxCDF	57117-44-9	0.132 JB	0.0238	5.09	1
11031	123789-HxCDF	72918-21-9	0.414 JBQ	0.0341	5.09	1
11031	234678-HxCDF	60851-34-5	0.157 JBQ	0.0258	5.09	1
11031	1234678-HpCDF	67562-39-4	0.685 JB	0.0159	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0646 JBQ	0.0343	5.09	1
11031	OCDF	39001-02-0	1.98 JB	0.0528	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	59	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	51	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Page 3 of 4

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SS-0.0-0.5

LLI Sample # SW 6421333
LLI Group # 1268679
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/27/2011 15:00

CDM Federal Programs Corp.

Submitted: 09/28/2011 09:00

14420 Albemarle Point Place

Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4317 SDG#: DX143-17*

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

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



Analysis Report

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

Page 4 of 4

Sample Description: SL-038-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
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LLI Sample # SW 6421333
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Reported: 10/17/2011 13:48

Suite 210

Chantilly VA 20151

X4317 SDG#: DX143-17*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11279002	10/09/2011 23:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11279002	10/06/2011 10:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162401A	10/05/2011 19:53	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/17/11 at 01:48 PM

Group Number: 1268679

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11278162401A Moisture Content by 160.3	Sample number(s): 6421323-6421333				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11279002	Sample number(s): 6421323-6421333								
2378-TCDD	0.0376 U	0.0376	1.00	ng/kg	102		67-158		
12378-PeCDD	0.0335 U	0.0335	5.00	ng/kg	101		70-142		
123478-HxCDD	0.0246 U	0.0246	5.00	ng/kg	101		70-164		
123678-HxCDD	0.0361 J	0.0260	5.00	ng/kg	98		76-134		
123789-HxCDD	0.0277 J	0.0253	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.197 J	0.0315	5.00	ng/kg	97		70-140		
OCDD	0.280 J	0.0357	10.0	ng/kg	99		78-144		
2378-TCDF	0.0307 U	0.0307	1.00	ng/kg	105		75-158		
12378-PeCDF	0.0199 J	0.0170	5.00	ng/kg	100		80-134		
23478-PeCDF	0.0351 J	0.0174	5.00	ng/kg	97		68-160		
123478-HxCDF	0.0470 J	0.0216	5.00	ng/kg	99		72-134		
123678-HxCDF	0.0229 J	0.0182	5.00	ng/kg	97		84-130		
123789-HxCDF	0.0335 J	0.0235	5.00	ng/kg	97		78-130		
234678-HxCDF	0.0501 J	0.0188	5.00	ng/kg	98		70-156		
1234678-HpCDF	0.123 J	0.0114	5.00	ng/kg	95		82-122		
1234789-HpCDF	0.0342 J	0.0217	5.00	ng/kg	97		78-138		
OCDF	0.108 J	0.0712	10.0	ng/kg	98		63-170		

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11278162401A Moisture Content by 160.3	Sample number(s): 6421323-6421333					BKG: P421299 4.6	4.8	3	20
Batch number: 11279002	Sample number(s): 6421323-6421333					UNSPK: P419541			
2378-TCDD	106	101	67-158	6	25				
12378-PeCDD	101	100	70-142	3	25				
123478-HxCDD	101	99	70-164	3	25				
123678-HxCDD	99	98	76-134	3	25				
123789-HxCDD	97	97	64-162	1	25				
1234678-HpCDD	97	99	70-140	0	25				

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/17/11 at 01:48 PM

Group Number: 1268679

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
OCDD	95	95	78-144	3	25			
2378-TCDF	97	96	75-158	4	25			
12378-PeCDF	99	98	80-134	3	25			
23478-PeCDF	95	96	68-160	1	25			
123478-HxCDF	96	96	72-134	2	25			
123678-HxCDF	96	96	84-130	2	25			
123789-HxCDF	97	96	78-130	3	25			
234678-HxCDF	98	96	70-156	5	25			
1234678-HpCDF	92	93	82-122	1	25			
1234789-HpCDF	99	96	78-138	5	25			
OCDF	97	95	63-170	5	25			

Surrogate Quality Control

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

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11279002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6421323	79	69	65	72	72	77
6421324	72	63	60	67	65	69
6421325	75	62	56	65	64	65
6421326	73	62	58	65	63	64
6421327	75	63	58	67	63	65
6421328	73	59	49	58	60	58
6421329	73	60	46	51	63	64
6421330	72	59	54	62	62	64
6421331	85	67	61	74	69	68
6421332	74	61	56	66	63	63
6421333	73	61	57	68	64	59
Blank	74	64	65	76	71	68
MS	66	61	63	73	66	63
MSD	64	61	65	72	67	67
OPR	62	57	58	69	64	59
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6421323	83	63	58	74	82	83
6421324	77	57	52	67	76	79
6421325	77	54	48	69	76	78
6421326	77	53	48	69	75	80
6421327	77	52	47	69	75	79
6421328	72	48	44	70	74	77
6421329	66	54	49	68	73	78
6421330	73	52	46	67	73	79
6421331	93	57	49	78	83	92

*- Outside of specification

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/17/11 at 01:48 PM

Group Number: 1268679

Surrogate Quality Control

6421332	84	52	49	70	77	82
6421333	86	51	48	71	76	80
Blank	89	57	47	73	85	87
MS	87	54	48	66	76	79
MSD	81	57	50	65	77	81
OPR	87	54	47	67	79	79
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6421323	82	79	75	75	75	
6421324	74	77	69	69	68	
6421325	77	77	67	69	72	
6421326	76	77	68	68	69	
6421327	85	75	64	70	72	
6421328	81	75	66	67	71	
6421329	81	77	71	69	69	
6421330	74	75	65	68	67	
6421331	86	90	79	76	80	
6421332	91	81	76	68	71	
6421333	81	77	77	64	72	
Blank	85	83	70	65	72	
MS	82	77	69	63	68	
MSD	83	75	67	61	65	
OPR	78	80	71	55	63	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

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

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

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

acct# 13013 Cp# 1263679

Sample# 6421323-33

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other instructions and Notes
NOTES: *Primary Analyses as Indicated on sample labels **Secondary Analyses as Indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCPs EPA 8062	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7189	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8650 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-004-SA5DS-SS-0.0-0.5	9/27/11	1415	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-004-SA5DS-SS-0.0-0.5	9/27/11	1415	SOIL	NONE	1-SS Sleeve			X	X										
SL-005-SA5DS-SS-0.0-0.5	9/27/11	1350	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-005-SA5DS-SS-0.0-0.5	9/27/11	1350	SOIL	NONE	1-SS Sleeve			X	X										
SL-006-SA5DS-SS-0.0-0.5	9/27/11	1130	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-006-SA5DS-SS-0.0-0.5	9/27/11	1130	SOIL	NONE	1-SS Sleeve			X	X										
SL-019-SA5DS-SS-0.0-0.5	9/27/11	1045	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-019-SA5DS-SS-0.0-0.5	9/27/11	1045	SOIL	NONE	1-SS Sleeve			X	X										
SL-020-SA5DS-SS-0.0-0.5	9/27/11	1110	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-020-SA5DS-SS-0.0-0.5	9/27/11	1110	SOIL	NONE	1-SS Sleeve			X	X										
SL-021-SA5DS-SS-0.0-0.5	9/27/11	1150	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-021-SA5DS-SS-0.0-0.5	9/27/11	1150	SOIL	NONE	1-SS Sleeve			X	X										
SL-022-SA5DS-SS-0.0-0.5	9/27/11	1440	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-022-SA5DS-SS-0.0-0.5	9/27/11	1440	SOIL	NONE	1-SS Sleeve			X	X										
SL-023-SA5DS-SS-0.0-0.5	9/27/11	0915	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-023-SA5DS-SS-0.0-0.5	9/27/11	0915	SOIL	NONE	1-SS Sleeve			X	X										
SL-024-SA5DS-SS-0.0-0.5	9/27/11	0845	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-024-SA5DS-SS-0.0-0.5	9/27/11	0845	SOIL	NONE	1-SS Sleeve			X	X										
SL-025-SA5DS-SS-0.0-0.5	9/27/11	0730	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-025-SA5DS-SS-0.0-0.5	9/27/11	0730	SOIL	NONE	1-SS Sleeve			X	X										
SL-038-SA5DS-SS-0.0-0.5	9/27/11	1500	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-038-SA5DS-SS-0.0-0.5	9/27/11	1500	SOIL	NONE	1-SS Sleeve			X	X										
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)												Laboratory:					
<i>[Signature]</i>	09/27/2011 / 1630													Lancaster Laboratories, Inc.					
Received by: (Signature)	Date/Time	Airbill No.(s)												NOTE: DO NOT ANALYZE SAMPLES FOR SL-003-SA5DS-SS-0.0-0.5. IT WAS COLLECTED IN ERROR					
<i>[Signature]</i>	9-28-11 900	8767 9858 3450; 8767 9858 3461 8767 9858 3472; 8767 9858 3483																	

Explanation of Symbols and Abbreviations

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

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

November 03, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/29/2011

Group Number: 1268901

SDG: DE257

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-103-SA7-SB-18.0-19.0 Soil	6422522
SL-106-SA7-SB-4.0-5.0 Soil	6422523
SL-106-SA7-SB-9.0-10.0 Soil	6422524
SL-106-SA7-SB-15.5 Soil	6422525
SL-106-SA7-SB-16.5-17.5 Soil	6422526
SL-106-SA7-SB-19.0-20.0 Soil	6422527
TB-092711 Water	6422528
SL-007-SA5DS-SS-0.0-0.5 Soil	6422529
SL-008-SA5DS-SS-0.0-0.5 Soil	6422530
SL-009-SA5DS-SS-0.0-0.5 Soil	6422531
SL-010-SA5DS-SS-0.0-0.5 Soil	6422532
SL-013-SA5DS-SS-0.0-0.5 Soil	6422533
SL-014-SA5DS-SS-0.0-0.5 Soil	6422534
SL-015-SA5DS-SS-0.0-0.5 Soil	6422535
SL-016-SA5DS-SS-0.0-0.5 Soil	6422536
SL-017-SA5DS-SS-0.0-0.5 Soil	6422537
SL-033-SA5DS-SS-0.0-0.5 Soil	6422538
SL-034-SA5DS-SS-0.0-0.5 Soil	6422539
SL-034-SA5DS-SS-0.0-0.5MS Soil	6422540
SL-034-SA5DS-SS-0.0-0.5MSD Soil	6422541
SL-034-SA5DS-SS-0.0-0.5DUP Soil	6422542
SL-034-SA5DS-SS-0.0-0.5RL MS Soil	6422543
SL-034-SA5DS-SS-0.0-0.5RL LCS Soil	6422544
SL-040-SA5DS-SS-0.0-0.5 Soil	6422545
DUP-02-SA5DS-QC-092811 Soil	6422546
EB-SA5DS-SS-092811 Water	6422547

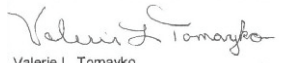
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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

Attn: Todd Burgess

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

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist



Analysis Report

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

Page 1 of 7

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422522
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5701 SDG#: DE257-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	183 U	183	366	10
Reporting limits were raised due to interference from the sample matrix.						
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	2-butoxy-Ethanol	111-76-2	1,800	U 1,800	1,800	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422522
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5701 SDG#: DE257-01

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	Pentachlorophenol	87-86-5	180 U	180	550	1
04688	Phenol	108-95-2	18 U	18	180	1
04688	2-phenoxy-Ethanol	122-99-6	1,800 U	1,800	1,800	1
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	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	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Chrysene	218-01-9	0.69 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	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5 U	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	25.99
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	660 U	660	1,600	1

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

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422522
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5701 SDG#: DE257-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
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 5.5	1
Pesticides/PCBs						
10225	Aroclor 5432	SW-846 8082 63496-31-1	ug/kg 1.1 U	ug/kg 1.1	ug/kg 3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.49 J	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
GC Miscellaneous						
10501	Ethanol	SW-846 8015B 64-17-5	ug/kg 110 U	ug/kg 110	ug/kg 550	1
10501	Isopropanol	67-63-0	110 U	110	550	1
10501	Methanol	67-56-1	110 U	110	550	1
GC Miscellaneous						
08283	Diethylene glycol	SW-846 8015B modified 111-46-6	mg/kg 5.5 U	mg/kg 5.5	mg/kg 11	1
08283	Ethylene glycol	107-21-1	5.5 U	5.5	11	1
08283	Propylene glycol	57-55-6	5.5 U	5.5	11	1
GC Petroleum						
Hydrocarbons						
10318	m-Terphenyl	SW-846 8015B 92-06-8	mg/kg 1.6 U	mg/kg 1.6	mg/kg 3.8	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.8	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.8	1
GC Petroleum						
Hydrocarbons						
10199	EFH (C12-C14)	SW-846 8015B modified n.a.	mg/kg 0.44 U	mg/kg 0.44	mg/kg 1.3	1
10199	EFH (C15-C20)	n.a.	0.44 U	0.44	1.3	1
10199	EFH (C21-C30)	n.a.	5.2	0.44	1.3	1
10199	EFH (C30 - C40)	n.a.	19	0.44	1.3	1
10199	EFH (C8-C11)	n.a.	0.44 U	0.44	1.3	1
Metals						
01643	Aluminum	SW-846 6010B 7429-90-5	mg/kg 14,400	mg/kg 6.39	mg/kg 21.1	1
07914	Boron	7440-42-8	6.75	0.380	5.28	1
01650	Calcium	7440-70-2	4,690	2.64	21.1	1
01654	Iron	7439-89-6	19,700	2.76	21.1	1
01656	Lithium	7439-93-2	24.5	0.66	2.1	1

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

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422522
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

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14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5701 SDG#: DE257-01

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	4,740	0.465	10.6	1
06958	Manganese	7439-96-5	254	0.0380	0.528	1
10145	Phosphorus	7723-14-0	430	0.370	10.6	1
01662	Potassium	7440-09-7	2,840	11.9	52.8	1
01667	Sodium	7440-23-5	166	6.29	106	1
07968	Strontium	7440-24-6	21.6	0.0264	0.528	1
06969	Tin	7440-31-5	2.67 J	0.338	10.6	1
06970	Titanium	7440-32-6	1,160	0.0750	1.06	1
10146	Zirconium	7440-67-7	1.67 J	0.486	5.28	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.133 J	0.0790	0.213	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.12	0.0854	0.427	2
06126	Barium	7440-39-3	96.1	0.113	0.427	2
06127	Beryllium	7440-41-7	0.581	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.118	0.0469	0.107	2
06131	Chromium	7440-47-3	17.2	0.128	0.427	2
06132	Cobalt	7440-48-4	5.93	0.0213	0.107	2
06133	Copper	7440-50-8	8.28	0.0854	0.427	2
06135	Lead	7439-92-1	5.34	0.0109	0.213	2
06138	Molybdenum	7439-98-7	0.483	0.0533	0.107	2
06139	Nickel	7440-02-0	11.5	0.107	0.427	2
06141	Selenium	7782-49-2	0.204 J	0.0619	0.427	2
06142	Silver	7440-22-4	0.0267 J	0.0151	0.107	2
06145	Thallium	7440-28-0	0.254	0.0320	0.107	2
06148	Vanadium	7440-62-2	35.9	0.0235	0.107	2
06149	Zinc	7440-66-6	77.2	0.597	3.20	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.8	0.87	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.0	0.87	1.6	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	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.05	0.0100	0.0100	1

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

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422522
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Chantilly VA 20151

E5701 SDG#: DE257-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	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

The volatile analysis was performed on soil from SL-103-SA7-SB-18.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 12:31	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/13/2011 19:48	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 17:22	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 16:21	Laura M Krieger	25.99
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127225692	09/29/2011 14:07	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127225692	09/29/2011 14:08	Christopher D Meeks	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 21:53	James H Place	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	112770016A	10/05/2011 19:28	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 17:59	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	112770016A	10/05/2011 09:00	Maria Davenport	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112730032A	10/03/2011 21:56	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 20:52	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 07:25	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 03:39	Heather E Williams	1

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

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422522
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Chantilly VA 20151

E5701 SDG#: DE257-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112730032A	10/03/2011 16:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 14:43	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 11:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 11:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 11:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 11:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:44	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 00:20	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11285285201A	10/14/2011 00:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/06/2011 19:59	Elyse P Brunstetter	1

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



Analysis Report

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Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422522
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5701 SDG#: DE257-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 14:33	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 7

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422523
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5702 SDG#: DE257-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles EPA 1625C		ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	17.3 U	17.3	34.6	1
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170 U	170	520	1
04688	Benzidine	92-87-5	1,200 U	1,200	3,500	1
04688	Benzoic acid	65-85-0	170 U	170	520	1
04688	Benzyl alcohol	100-51-6	170 U	170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17 U	17	170	1
04688	2-butoxy-Ethanol	111-76-2	1,700 U	1,700	1,700	1
04688	Carbazole	86-74-8	17 U	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35 U	35	170	1
04688	4-Chloroaniline	106-47-8	69 U	69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17 U	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17 U	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17 U	17	170	1
04688	2-Chloronaphthalene	91-58-7	17 U	17	170	1
04688	2-Chlorophenol	95-57-8	17 U	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35 U	35	170	1
04688	Dibenzofuran	132-64-9	17 U	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17 U	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17 U	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17 U	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100 U	100	350	1
04688	2,4-Dichlorophenol	120-83-2	17 U	17	170	1
04688	2,4-Dimethylphenol	105-67-9	35 U	35	170	1
04688	3,5-Dimethylphenol	108-68-9	35 U	35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170 U	170	520	1
04688	2,4-Dinitrophenol	51-28-5	350 U	350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35 U	35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17 U	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17 U	17	170	1
04688	Hexachlorobenzene	118-74-1	17 U	17	170	1
04688	Hexachlorobutadiene	87-68-3	69 U	69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170 U	170	520	1
04688	Hexachloroethane	67-72-1	17 U	17	170	1
04688	Isophorone	78-59-1	17 U	17	170	1
04688	2-Methylphenol	95-48-7	35 U	35	170	1
04688	4-Methylphenol	106-44-5	35 U	35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17 U	17	170	1
04688	3-Nitroaniline	99-09-2	35 U	35	170	1
04688	4-Nitroaniline	100-01-6	69 U	69	170	1
04688	Nitrobenzene	98-95-3	17 U	17	170	1
04688	2-Nitrophenol	88-75-5	17 U	17	170	1
04688	4-Nitrophenol	100-02-7	170 U	170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17 U	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17 U	17	170	1

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

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422523
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5702 SDG#: DE257-02

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	Pentachlorophenol	87-86-5	170 U	170	520	1
04688	Phenol	108-95-2	17 U	17	170	1
04688	2-phenoxy-Ethanol	122-99-6	1,700 U	1,700	1,700	1
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68 U	0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 U	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68 U	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	2.5 U	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 J	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.68 U	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	1.1 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68 U	0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.1 U	6.1	18	1
10138	Fluoranthene	206-44-0	0.68 U	0.68	1.7	1
10138	Fluorene	86-73-7	0.68 U	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68 U	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68 U	0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68 U	0.68	1.7	1
10138	Naphthalene	91-20-3	0.68 U	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68 U	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	0.68 U	0.68	1.7	1
10138	Pyrene	129-00-0	0.72 J	0.68	1.7	1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	27.17
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	620 U	620	1,600	1

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

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422523
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5702 SDG#: DE257-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	1.5 J	0.34	1.8	1
10225	PCB-1254	11097-69-1	1.1 J	0.34	1.8	1
10225	PCB-1260	11096-82-5	1.1 J	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.

GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520	1
10501	Isopropanol	67-63-0	100 U	100	520	1
10501	Methanol	67-56-1	100 U	100	520	1

GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10	1

GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.5 U	1.5	3.6	1
10318	o-Terphenyl	84-15-1	1.5 U	1.5	3.6	1
10318	p-Terphenyl	92-94-4	1.5 U	1.5	3.6	1

GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	8.3 U	8.3	25	20
10199	EFH (C15-C20)	n.a.	8.3 U	8.3	25	20
10199	EFH (C21-C30)	n.a.	49	8.3	25	20
10199	EFH (C30 - C40)	n.a.	230	8.3	25	20
10199	EFH (C8-C11)	n.a.	8.3 U	8.3	25	20

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

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



Analysis Report

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Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422523
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5702 SDG#: DE257-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,100	6.09	20.1	1
07914	Boron	7440-42-8	5.10	0.363	5.04	1
01650	Calcium	7440-70-2	3,490	2.52	20.1	1
01654	Iron	7439-89-6	18,900	2.63	20.1	1
01656	Lithium	7439-93-2	24.8	0.62	2.0	1
01657	Magnesium	7439-95-4	4,480	0.443	10.1	1
06958	Manganese	7439-96-5	267	0.0363	0.504	1
10145	Phosphorus	7723-14-0	350	0.352	10.1	1
01662	Potassium	7440-09-7	2,800	11.4	50.4	1
01667	Sodium	7440-23-5	126	5.99	101	1
07968	Strontium	7440-24-6	15.7	0.0252	0.504	1
06969	Tin	7440-31-5	2.55 J	0.322	10.1	1
06970	Titanium	7440-32-6	1,110	0.0715	1.01	1
10146	Zirconium	7440-67-7	0.809 J	0.463	5.04	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0932 J	0.0738	0.199	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.57	0.0798	0.399	2
06126	Barium	7440-39-3	92.8	0.106	0.399	2
06127	Beryllium	7440-41-7	0.529	0.0160	0.0997	2
06128	Cadmium	7440-43-9	0.109	0.0439	0.0997	2
06131	Chromium	7440-47-3	16.3	0.120	0.399	2
06132	Cobalt	7440-48-4	5.67	0.0199	0.0997	2
06133	Copper	7440-50-8	7.35	0.0798	0.399	2
06135	Lead	7439-92-1	5.54	0.0102	0.199	2
06138	Molybdenum	7439-98-7	0.511	0.0499	0.0997	2
06139	Nickel	7440-02-0	11.0	0.0997	0.399	2
06141	Selenium	7782-49-2	0.131 J	0.0579	0.399	2
06142	Silver	7440-22-4	0.0241 J	0.0142	0.0997	2
06145	Thallium	7440-28-0	0.270	0.0299	0.0997	2
06148	Vanadium	7440-62-2	33.2	0.0219	0.0997	2
06149	Zinc	7440-66-6	67.4	0.559	2.99	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.101	1
Wet Chemistry						
		EPA 300.0	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.0	0.83	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.1 J	0.83	1.6	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.1	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.0 U	1.0	5.1	5

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

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422523
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5702 SDG#: DE257-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.26	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	3.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-106-SA7-SB-4.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/10/2011 19:20	Matthew S Woods	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/15/2011 18:47	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 17:55	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 16:57	Laura M Krieger	27.17
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127225692	09/29/2011 14:08	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127225692	09/29/2011 14:09	Christopher D Meeks	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 22:02	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 18:18	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112730032A	10/03/2011 22:12	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 21:05	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/08/2011 16:35	Heather E Williams	1

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

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422523
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5702 SDG#: DE257-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 06:02	Heather E Williams	20
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112730032A	10/03/2011 16:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 14:55	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 11:44	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 11:44	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 11:44	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 11:44	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:45	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 00:57	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11285285201A	10/14/2011 00:57	Ashley M Adams	1

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



Analysis Report

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Page 7 of 7

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422523
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5702 SDG#: DE257-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/06/2011 21:09	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 14:46	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 7

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422524
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5703 SDG#: DE257-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C						
11622	N-Nitrosodimethylamine	62-75-9	180 U	180	361	10
Reporting limits were raised due to interference from the sample matrix.						
GC/MS Semivolatiles SW-846 8270C						
04688	Aniline	62-53-3	180	U 180	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	2-butoxy-Ethanol	111-76-2	1,800	U 1,800	1,800	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422524
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5703 SDG#: DE257-03

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	
	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
04688	2-phenoxy-Ethanol	122-99-6	1,800 U	1,800	1,800	1
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.82 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1

GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.2	27.96

HPLC Organics		SW-846 8315A	ug/kg		ug/kg	ug/kg
04173	20a Formaldehyde 8315A	50-00-0	650	U	650	1,600

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

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422524
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5703 SDG#: DE257-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.45 J	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.71 J	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.

GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	540	1
10501	Isopropanol	67-63-0	110 U	110	540	1
10501	Methanol	67-56-1	110 U	110	540	1

GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4 U	5.4	11	1
08283	Ethylene glycol	107-21-1	5.4 U	5.4	11	1
08283	Propylene glycol	57-55-6	5.4 U	5.4	11	1

GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.8	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.8	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.8	1

GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.43 U	0.43	1.3	1
10199	EFH (C15-C20)	n.a.	0.43 U	0.43	1.3	1
10199	EFH (C21-C30)	n.a.	4.5	0.43	1.3	1
10199	EFH (C30 - C40)	n.a.	16	0.43	1.3	1
10199	EFH (C8-C11)	n.a.	0.43 U	0.43	1.3	1

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

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



Analysis Report

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Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422524
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5703 SDG#: DE257-03

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	12,300	6.36	21.0	1
07914	Boron	7440-42-8	4.42 J	0.378	5.25	1
01650	Calcium	7440-70-2	3,680	2.63	21.0	1
01654	Iron	7439-89-6	18,200	2.74	21.0	1
01656	Lithium	7439-93-2	24.6	0.65	2.1	1
01657	Magnesium	7439-95-4	4,440	0.462	10.5	1
06958	Manganese	7439-96-5	258	0.0378	0.525	1
10145	Phosphorus	7723-14-0	341	0.368	10.5	1
01662	Potassium	7440-09-7	2,760	11.9	52.5	1
01667	Sodium	7440-23-5	133	6.25	105	1
07968	Strontium	7440-24-6	15.1	0.0263	0.525	1
06969	Tin	7440-31-5	2.78 J	0.336	10.5	1
06970	Titanium	7440-32-6	1,090	0.0746	1.05	1
10146	Zirconium	7440-67-7	1.01 J	0.483	5.25	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.127 J	0.0785	0.212	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.88	0.0849	0.424	2
06126	Barium	7440-39-3	97.4	0.112	0.424	2
06127	Beryllium	7440-41-7	0.592	0.0170	0.106	2
06128	Cadmium	7440-43-9	0.160	0.0467	0.106	2
06131	Chromium	7440-47-3	16.5	0.127	0.424	2
06132	Cobalt	7440-48-4	6.43	0.0212	0.106	2
06133	Copper	7440-50-8	7.93	0.0849	0.424	2
06135	Lead	7439-92-1	5.51	0.0108	0.212	2
06138	Molybdenum	7439-98-7	0.529	0.0531	0.106	2
06139	Nickel	7440-02-0	12.7	0.106	0.424	2
06141	Selenium	7782-49-2	0.160 J	0.0615	0.424	2
06142	Silver	7440-22-4	0.0151 U	0.0151	0.106	2
06145	Thallium	7440-28-0	0.277	0.0318	0.106	2
06148	Vanadium	7440-62-2	33.6	0.0233	0.106	2
06149	Zinc	7440-66-6	97.4	0.594	3.18	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0073 J	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.1	0.87	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.8	0.87	1.6	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	22.1 U	22.1	110	100

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

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422524
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5703 SDG#: DE257-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.36	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-106-SA7-SB-9.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 12:50	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/14/2011 18:38	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 18:27	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 17:33	Laura M Krieger	27.96
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127225692	09/29/2011 14:10	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127225692	09/29/2011 14:10	Christopher D Meeks	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 22:12	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 18:37	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112730032A	10/03/2011 22:29	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 21:18	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 07:53	Heather E Williams	1

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

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422524
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5703 SDG#: DE257-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 00:04	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112730032A	10/03/2011 16:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 14:59	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 11:53	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 11:53	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 11:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 11:53	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:46	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 01:09	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11285285201A	10/14/2011 01:09	Ashley M Adams	1

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

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422524
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5703 SDG#: DE257-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/06/2011 21:55	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 15:00	Elyse P Brunstetter	100
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Page 1 of 3

Sample Description: SL-106-SA7-SB-15.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-15.5

LLI Sample # SW 6422525
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:33

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5704 SDG#: DE257-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	
06192	Acetone	67-64-1	11	7.0	8.3	0.96
06192	Benzene	71-43-2	0.10 U	0.10	4.2	0.96
06192	Bromobenzene	108-86-1	0.14 U	0.14	4.2	0.96
06192	Bromochloromethane	74-97-5	0.34 U	0.34	4.2	0.96
06192	Bromodichloromethane	75-27-4	0.08 U	0.08	4.2	0.96
06192	Bromoform	75-25-2	0.42 U	0.42	4.2	0.96
06192	Bromomethane	74-83-9	0.26 U	0.26	4.2	0.96
06192	2-Butanone	78-93-3	2.9 J	1.3	8.3	0.96
06192	n-Butylbenzene	104-51-8	0.13 U	0.13	4.2	0.96
06192	sec-Butylbenzene	135-98-8	0.06 U	0.06	4.2	0.96
06192	tert-Butylbenzene	98-06-6	0.17 U	0.17	4.2	0.96
06192	Carbon Tetrachloride	56-23-5	0.15 U	0.15	4.2	0.96
06192	Chlorobenzene	108-90-7	0.11 U	0.11	4.2	0.96
06192	Chloroethane	75-00-3	0.14 U	0.14	4.2	0.96
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.31 U	0.31	4.2	0.96
06192	Chloroform	67-66-3	0.13 U	0.13	4.2	0.96
06192	Chloromethane	74-87-3	0.34 U	0.34	4.2	0.96
06192	2-Chlorotoluene	95-49-8	0.15 U	0.15	4.2	0.96
06192	4-Chlorotoluene	106-43-4	0.15 U	0.15	4.2	0.96
06192	Chlorotrifluoroethene	79-38-9	0.52 U	0.52	5.2	0.96
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.73 U	0.73	4.2	0.96
06192	Dibromochloromethane	124-48-1	0.21 U	0.21	4.2	0.96
06192	1,2-Dibromoethane	106-93-4	0.18 U	0.18	4.2	0.96
06192	Dibromomethane	74-95-3	0.25 U	0.25	4.2	0.96
06192	1,2-Dichlorobenzene	95-50-1	0.09 U	0.09	4.2	0.96
06192	1,3-Dichlorobenzene	541-73-1	0.13 U	0.13	4.2	0.96
06192	1,4-Dichlorobenzene	106-46-7	0.17 U	0.17	4.2	0.96
06192	Dichlorodifluoromethane	75-71-8	0.13 U	0.13	4.2	0.96
06192	1,1-Dichloroethane	75-34-3	0.10 U	0.10	4.2	0.96
06192	1,2-Dichloroethane	107-06-2	0.16 U	0.16	4.2	0.96
06192	1,1-Dichloroethene	75-35-4	0.41 U	0.41	4.2	0.96
06192	cis-1,2-Dichloroethene	156-59-2	0.20 U	0.20	4.2	0.96
06192	trans-1,2-Dichloroethene	156-60-5	0.13 U	0.13	4.2	0.96
06192	1,2-Dichloropropane	78-87-5	0.18 U	0.18	4.2	0.96
06192	1,3-Dichloropropane	142-28-9	0.08 U	0.08	4.2	0.96
06192	2,2-Dichloropropane	594-20-7	0.18 U	0.18	4.2	0.96
06192	1,1-Dichloropropene	563-58-6	0.14 U	0.14	4.2	0.96
06192	cis-1,3-Dichloropropene	10061-01-5	0.17 U	0.17	4.2	0.96
06192	trans-1,3-Dichloropropene	10061-02-6	0.18 U	0.18	4.2	0.96
06192	Ethylbenzene	100-41-4	0.08 J	0.06	4.2	0.96
06192	Freon 113	76-13-1	0.11 U	0.11	4.2	0.96
06192	Freon 133a	75-88-7	0.52 U	0.52	5.2	0.96
06192	Hexachlorobutadiene	87-68-3	0.15 U	0.15	4.2	0.96
06192	2-Hexanone	591-78-6	1.7 U	1.7	8.3	0.96
06192	Isopropylbenzene	98-82-8	0.06 U	0.06	4.2	0.96
06192	p-Isopropyltoluene	99-87-6	0.11 U	0.11	4.2	0.96
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.22 U	0.22	4.2	0.96
06192	4-Methyl-2-pentanone	108-10-1	0.41 U	0.41	8.3	0.96
06192	Methylene Chloride	75-09-2	0.72 J	0.25	4.2	0.96
06192	n-Propylbenzene	103-65-1	0.07 U	0.07	4.2	0.96

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

Sample Description: SL-106-SA7-SB-15.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-15.5

LLI Sample # SW 6422525
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:33

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

Submitted: 09/29/2011 09:05

Reported: 11/03/2011 14:54

E5704 SDG#: DE257-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
06192	Styrene	100-42-5	0.10 U	0.10	4.2	0.96
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.11 U	0.11	4.2	0.96
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.24 U	0.24	4.2	0.96
06192	Tetrachloroethene	127-18-4	0.21 U	0.21	4.2	0.96
06192	Toluene	108-88-3	0.42 J	0.08	4.2	0.96
06192	1,2,3-Trichlorobenzene	87-61-6	0.15 U	0.15	4.2	0.96
06192	1,2,4-Trichlorobenzene	120-82-1	0.19 U	0.19	4.2	0.96
06192	1,1,1-Trichloroethane	71-55-6	0.21 U	0.21	4.2	0.96
06192	1,1,2-Trichloroethane	79-00-5	0.28 U	0.28	4.2	0.96
06192	Trichloroethene	79-01-6	0.16 U	0.16	4.2	0.96
06192	Trichlorofluoromethane	75-69-4	0.30 U	0.30	4.2	0.96
06192	1,2,3-Trichloropropane	96-18-4	0.34 U	0.34	4.2	0.96
06192	1,2,4-Trimethylbenzene	95-63-6	0.42 U	0.42	4.2	0.96
06192	1,3,5-Trimethylbenzene	108-67-8	0.10 U	0.10	4.2	0.96
06192	Vinyl Chloride	75-01-4	0.21 U	0.21	4.2	0.96
06192	m+p-Xylene	179601-23-1	0.32 J	0.18	4.2	0.96
06192	o-Xylene	95-47-6	0.18 U	0.18	4.2	0.96
GC/MS Volatiles SW-846 8260B SIM						
10326	1,4-Dioxane	123-91-1	5.3 U	5.3	16	24.41
GC Volatiles TPH GRO SW-846 8015B mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.2	26.6
Wet Chemistry EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	7.5	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
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B112771AA	10/04/2011 16:26	Chelsea B Eastep	0.96
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E112732AA	09/30/2011 16:27	Jason M Long	24.41
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201127225692	09/29/2011 14:13	Christopher D Meeks	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201127225692	09/29/2011 14:21	Christopher D Meeks	n.a.

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



Analysis Report

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

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Sample Description: SL-106-SA7-SB-15.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-15.5

LLI Sample # SW 6422525
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:33

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5704 SDG#: DE257-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201127225692	09/29/2011 14:21	Christopher D Meeks	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201127225692	09/29/2011 14:13	Christopher D Meeks	n.a.
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 18:10	Laura M Krieger	26.6
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127225692	09/29/2011 14:12	Christopher D Meeks	n.a.
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 7

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422526
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5705 SDG#: DE257-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	180 U	180	360	10
Reporting limits were raised due to interference from the sample matrix.						
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	2-butoxy-Ethanol	111-76-2	1,800 U	1,800	1,800	1
04688	Carbazole	86-74-8	18 U	18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36 U	36	180	1
04688	4-Chloroaniline	106-47-8	72 U	72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18 U	18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18 U	18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18 U	18	180	1
04688	2-Chloronaphthalene	91-58-7	18 U	18	180	1
04688	2-Chlorophenol	95-57-8	18 U	18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36 U	36	180	1
04688	Dibenzofuran	132-64-9	18 U	18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18 U	18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18 U	18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18 U	18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110 U	110	360	1
04688	2,4-Dichlorophenol	120-83-2	18 U	18	180	1
04688	2,4-Dimethylphenol	105-67-9	36 U	36	180	1
04688	3,5-Dimethylphenol	108-68-9	36 U	36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180 U	180	540	1
04688	2,4-Dinitrophenol	51-28-5	360 U	360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36 U	36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18 U	18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18 U	18	180	1
04688	Hexachlorobenzene	118-74-1	18 U	18	180	1
04688	Hexachlorobutadiene	87-68-3	72 U	72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180 U	180	540	1
04688	Hexachloroethane	67-72-1	18 U	18	180	1
04688	Isophorone	78-59-1	18 U	18	180	1
04688	2-Methylphenol	95-48-7	36 U	36	180	1
04688	4-Methylphenol	106-44-5	36 U	36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18 U	18	180	1
04688	3-Nitroaniline	99-09-2	36 U	36	180	1
04688	4-Nitroaniline	100-01-6	72 U	72	180	1
04688	Nitrobenzene	98-95-3	18 U	18	180	1
04688	2-Nitrophenol	88-75-5	18 U	18	180	1
04688	4-Nitrophenol	100-02-7	180 U	180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18 U	18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18 U	18	180	1

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

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422526
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5705 SDG#: DE257-05

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	540	1
04688	Phenol	108-95-2	18 U	18	180	1
04688	2-phenoxy-Ethanol	122-99-6	1,800 U	1,800	1,800	1
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	2.4 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.2 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.2 J	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	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	1.3 J	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1

GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.2	26.65

HPLC Organics	SW-846 8315A	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	650 U	650	1,600

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

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422526
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5705 SDG#: DE257-05

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	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	540	1
10501	Isopropanol	67-63-0	110 U	110	540	1
10501	Methanol	67-56-1	110 U	110	540	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4 U	5.4	11	1
08283	Ethylene glycol	107-21-1	5.4 U	5.4	11	1
08283	Propylene glycol	57-55-6	5.4 U	5.4	11	1
GC Petroleum						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.8	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.8	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.8	1
GC Petroleum						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.43 U	0.43	1.3	1
10199	EFH (C15-C20)	n.a.	0.43 U	0.43	1.3	1
10199	EFH (C21-C30)	n.a.	4.5	0.43	1.3	1
10199	EFH (C30 - C40)	n.a.	17	0.43	1.3	1
10199	EFH (C8-C11)	n.a.	0.43 U	0.43	1.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,600	6.41	21.2	1
07914	Boron	7440-42-8	6.76	0.382	5.30	1
01650	Calcium	7440-70-2	3,170	2.65	21.2	1
01654	Iron	7439-89-6	21,100	2.77	21.2	1
01656	Lithium	7439-93-2	20.8	0.66	2.1	1
01657	Magnesium	7439-95-4	3,680	0.466	10.6	1
06958	Manganese	7439-96-5	192	0.0382	0.530	1
10145	Phosphorus	7723-14-0	209	0.371	10.6	1

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

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422526
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5705 SDG#: DE257-05

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	
01662	Potassium	7440-09-7	2,220	12.0	53.0	1
01667	Sodium	7440-23-5	182	6.31	106	1
07968	Strontium	7440-24-6	19.3	0.0265	0.530	1
06969	Tin	7440-31-5	2.89 J	0.339	10.6	1
06970	Titanium	7440-32-6	1,090	0.0753	1.06	1
10146	Zirconium	7440-67-7	1.46 J	0.488	5.30	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.347	0.0792	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	10.5	0.0856	0.428	2
06126	Barium	7440-39-3	165	0.113	0.428	2
06127	Beryllium	7440-41-7	1.18	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.183	0.0471	0.107	2
06131	Chromium	7440-47-3	31.6	0.128	0.428	2
06132	Cobalt	7440-48-4	9.55	0.0214	0.107	2
06133	Copper	7440-50-8	15.9	0.0856	0.428	2
06135	Lead	7439-92-1	16.3	0.0109	0.214	2
06138	Molybdenum	7439-98-7	0.909	0.0535	0.107	2
06139	Nickel	7440-02-0	19.5	0.107	0.428	2
06141	Selenium	7782-49-2	0.210 J	0.0621	0.428	2
06142	Silver	7440-22-4	0.0434 J	0.0152	0.107	2
06145	Thallium	7440-28-0	0.414	0.0321	0.107	2
06148	Vanadium	7440-62-2	66.1	0.0235	0.107	2
06149	Zinc	7440-66-6	100	0.599	3.21	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0143 J	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.2	0.86	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.6	0.86	1.6	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	8.5 J	2.0	10.2	10
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.96	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	7.5	0.50	0.50	1

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

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422526
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5705 SDG#: DE257-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%		
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-106-SA7-SB-17.0.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 13:09	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/14/2011 19:03	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/13/2011 22:35	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 18:46	Laura M Krieger	26.65
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127225692	09/29/2011 14:16	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127225692	09/29/2011 14:17	Christopher D Meeks	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 22:21	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 18:55	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112730032A	10/03/2011 22:45	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 21:31	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 08:20	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 00:28	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112730032A	10/03/2011 16:00	Elizabeth J Marin	1

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

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422526
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5705 SDG#: DE257-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:03	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 11:56	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 11:56	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 11:56	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 11:56	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:47	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 01:21	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11285285201A	10/14/2011 01:21	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/06/2011 22:18	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 15:20	Elyse P Brunstetter	10
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1

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



Analysis Report

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

Page 7 of 7

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422526
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5705 SDG#: DE257-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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

Page 1 of 7

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422527
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5706 SDG#: DE257-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C						
11622	N-Nitrosodimethylamine	62-75-9	179 U	179	357	10
Reporting limits were raised due to interference from the sample matrix.						
GC/MS Semivolatiles SW-846 8270C						
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	2-butoxy-Ethanol	111-76-2	1,800	U 1,800	1,800	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

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

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422527
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5706 SDG#: DE257-06

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	Pentachlorophenol	87-86-5	180 U	180	530	1
04688	Phenol	108-95-2	18 U	18	180	1
04688	2-phenoxy-Ethanol	122-99-6	1,800 U	1,800	1,800	1
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	1.3 J	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	5.9	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	5.6	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	8.8	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.4 J	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	3.8	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	6.9	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	15 J	6.3	19	1
10138	Fluoranthene	206-44-0	13	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.3 J	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	5.4	0.70	1.8	1
10138	Pyrene	129-00-0	14	0.70	1.8	1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	26.26
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	1,200 J	640	1,600	1

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

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422527
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5706 SDG#: DE257-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1	U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1	U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35	U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35	U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35	U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35	U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35	U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35	U	0.35	1.8	1
10225	PCB-1260	11096-82-5	1.8		0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35	U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35	U	0.35	1.8	1
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	
10501	Ethanol	64-17-5	110	U	110	540	1
10501	Isopropanol	67-63-0	110	U	110	540	1
10501	Methanol	67-56-1	110	U	110	540	1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4	U	5.4	11	1
08283	Ethylene glycol	107-21-1	5.4	U	5.4	11	1
08283	Propylene glycol	57-55-6	5.4	U	5.4	11	1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	4.3	U	4.3	13	10
10199	EFH (C15-C20)	n.a.	4.3	U	4.3	13	10
10199	EFH (C21-C30)	n.a.	23		4.3	13	10
10199	EFH (C30 - C40)	n.a.	98		4.3	13	10
10199	EFH (C8-C11)	n.a.	4.3	U	4.3	13	10
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,700		6.30	20.8	1
07914	Boron	7440-42-8	5.79		0.375	5.20	1
01650	Calcium	7440-70-2	5,010		2.60	20.8	1
01654	Iron	7439-89-6	19,000		2.72	20.8	1
01656	Lithium	7439-93-2	23.1		0.65	2.1	1
01657	Magnesium	7439-95-4	4,380		0.458	10.4	1
06958	Manganese	7439-96-5	297		0.0375	0.520	1
10145	Phosphorus	7723-14-0	342		0.364	10.4	1

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

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422527
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5706 SDG#: DE257-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,820	11.8	52.0	1
01667	Sodium	7440-23-5	158	6.19	104	1
07968	Strontium	7440-24-6	19.0	0.0260	0.520	1
06969	Tin	7440-31-5	2.77 J	0.333	10.4	1
06970	Titanium	7440-32-6	1,120	0.0739	1.04	1
10146	Zirconium	7440-67-7	1.26 J	0.479	5.20	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.143 J	0.0778	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	5.25	0.0841	0.420	2
06126	Barium	7440-39-3	105	0.111	0.420	2
06127	Beryllium	7440-41-7	0.651	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.186	0.0462	0.105	2
06131	Chromium	7440-47-3	28.1	0.126	0.420	2
06132	Cobalt	7440-48-4	6.42	0.0210	0.105	2
06133	Copper	7440-50-8	9.86	0.0841	0.420	2
06135	Lead	7439-92-1	6.75	0.0107	0.210	2
06138	Molybdenum	7439-98-7	4.43	0.0525	0.105	2
06139	Nickel	7440-02-0	13.8	0.105	0.420	2
06141	Selenium	7782-49-2	0.213 J	0.0609	0.420	2
06142	Silver	7440-22-4	0.0200 J	0.0149	0.105	2
06145	Thallium	7440-28-0	0.311	0.0315	0.105	2
06148	Vanadium	7440-62-2	38.4	0.0231	0.105	2
06149	Zinc	7440-66-6	100	0.588	3.15	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 J	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.1	0.85	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.9	0.85	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.44	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

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

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422527
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5706 SDG#: DE257-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%		
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-106-SA7-SB-19.5.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11280SLB026	10/11/2011 13:28	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/14/2011 19:28	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 19:32	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11280SLB026	10/07/2011 17:30	JoElla L Rice	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 19:22	Laura M Krieger	26.26
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127225692	09/29/2011 14:18	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127225692	09/29/2011 14:18	Christopher D Meeks	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112740006A	10/05/2011 22:40	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 19:14	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112740006A	10/03/2011 19:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112730032A	10/03/2011 23:02	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 21:43	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/11/2011 08:47	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/09/2011 05:38	Heather E Williams	10
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112730032A	10/03/2011 16:00	Elizabeth J Marin	1

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

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422527
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5706 SDG#: DE257-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:07	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 11:59	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 11:59	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 11:59	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 11:59	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:48	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 01:33	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11285285201A	10/14/2011 01:33	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/06/2011 22:41	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 15:33	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	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

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Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422527
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5706 SDG#: DE257-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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

Sample Description: TB-092711 Water
SSFL Area IV Collocated Soil Sampling
TB-092711

LLI Sample # WW 6422528
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5707 SDG#: DE257-07TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l		ug/l	ug/l	
10904	Acetone	67-64-1	6	U	6	20	1
10904	Benzene	71-43-2	0.5	U	0.5	5	1
10904	Bromobenzene	108-86-1	1	U	1	5	1
10904	Bromochloromethane	74-97-5	1	U	1	5	1
10904	Bromodichloromethane	75-27-4	1	U	1	5	1
10904	Bromoform	75-25-2	1	U	1	5	1
10904	Bromomethane	74-83-9	1	U	1	5	1
10904	2-Butanone	78-93-3	3	U	3	10	1
10904	n-Butylbenzene	104-51-8	1	U	1	5	1
10904	sec-Butylbenzene	135-98-8	1	U	1	5	1
10904	tert-Butylbenzene	98-06-6	1	U	1	5	1
10904	Carbon Tetrachloride	56-23-5	1	U	1	5	1
10904	Chlorobenzene	108-90-7	0.8	U	0.8	5	1
10904	Chloroethane	75-00-3	1	U	1	5	1
10904	2-Chloroethyl Vinyl Ether	110-75-8	2	U	2	10	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10904	Chloroform	67-66-3	0.8	U	0.8	5	1
10904	Chloromethane	74-87-3	1	U	1	5	1
10904	2-Chlorotoluene	95-49-8	1	U	1	5	1
10904	4-Chlorotoluene	106-43-4	1	U	1	5	1
10904	Chlorotrifluoroethene	79-38-9	2	U	2	5	1
10904	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10904	Dibromochloromethane	124-48-1	1	U	1	5	1
10904	1,2-Dibromoethane	106-93-4	1	U	1	5	1
10904	Dibromomethane	74-95-3	1	U	1	5	1
10904	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10904	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10904	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10904	Dichlorodifluoromethane	75-71-8	2	U	2	5	1
10904	1,1-Dichloroethane	75-34-3	1	U	1	5	1
10904	1,2-Dichloroethane	107-06-2	1	U	1	5	1
10904	1,1-Dichloroethene	75-35-4	0.8	U	0.8	5	1
10904	cis-1,2-Dichloroethene	156-59-2	0.8	U	0.8	5	1
10904	trans-1,2-Dichloroethene	156-60-5	0.8	U	0.8	5	1
10904	1,2-Dichloropropane	78-87-5	1	U	1	5	1
10904	1,3-Dichloropropane	142-28-9	1	U	1	5	1
10904	2,2-Dichloropropane	594-20-7	1	U	1	5	1
10904	1,1-Dichloropropene	563-58-6	1	U	1	5	1
10904	cis-1,3-Dichloropropene	10061-01-5	1	U	1	5	1
10904	trans-1,3-Dichloropropene	10061-02-6	1	U	1	5	1
10904	Ethylbenzene	100-41-4	0.8	U	0.8	5	1
10904	Freon 113	76-13-1	2	U	2	10	1
10904	Freon 133a	75-88-7	2	U	2	5	1
10904	Hexachlorobutadiene	87-68-3	2	U	2	5	1
10904	2-Hexanone	591-78-6	3	U	3	10	1
10904	Isopropylbenzene	98-82-8	1	U	1	5	1
10904	p-Isopropyltoluene	99-87-6	1	U	1	5	1
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5	U	0.5	5	1
10904	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1

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



Analysis Report

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Sample Description: TB-092711 Water
SSFL Area IV Collocated Soil Sampling
TB-092711

LLI Sample # WW 6422528
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5707 SDG#: DE257-07TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l		ug/l	ug/l	
10904	Methylene Chloride	75-09-2	2	U	2	5	1
10904	n-Propylbenzene	103-65-1	1	U	1	5	1
10904	Styrene	100-42-5	1	U	1	5	1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	5	1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	5	1
10904	Tetrachloroethene	127-18-4	0.8	U	0.8	5	1
10904	Toluene	108-88-3	0.7	U	0.7	5	1
10904	1,2,3-Trichlorobenzene	87-61-6	1	U	1	5	1
10904	1,2,4-Trichlorobenzene	120-82-1	1	U	1	5	1
10904	1,1,1-Trichloroethane	71-55-6	0.8	U	0.8	5	1
10904	1,1,2-Trichloroethane	79-00-5	0.8	U	0.8	5	1
10904	Trichloroethene	79-01-6	1	U	1	5	1
10904	Trichlorofluoromethane	75-69-4	2	U	2	5	1
10904	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10904	1,2,4-Trimethylbenzene	95-63-6	1	U	1	5	1
10904	1,3,5-Trimethylbenzene	108-67-8	1	U	1	5	1
10904	Vinyl Chloride	75-01-4	1	U	1	5	1
10904	m+p-Xylene	179601-23-1	0.8	U	0.8	5	1
10904	o-Xylene	95-47-6	0.8	U	0.8	5	1
GC/MS	Volatiles	SW-846 8260B SIM	ug/l		ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5	U	0.5	2.0	1
GC	Volatiles	TPH GRO SW-8015B	ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20	U	20	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10904	1b Volatile Organics EPA8260B	SW-846 8260B	1	Y112722AA	09/29/2011 20:44	Frank A Valla, Jr	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E112722AA	09/29/2011 21:42	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y112722AA	09/29/2011 20:44	Frank A Valla, Jr	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	E112722AA	09/29/2011 21:42	Sara E Johnson	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11279A20A	10/07/2011 12:30	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279A20A	10/07/2011 12:30	Marie D John	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

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Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422529
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5708 SDG#: DE257-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	500	1
04688	Benzyl alcohol	100-51-6	170	U 170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	500	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	500	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422529
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5708 SDG#: DE257-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.33	U 0.33	1.7	1
10138	Anthracene	120-12-7	0.33	U 0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.67	U 0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.67	U 0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	4.9	U 0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67	U 0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67	U 0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0	U 6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0	U 6.0	18	1
10138	Chrysene	218-01-9	0.84	J 0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0	U 6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0	U 6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	10	J 6.0	18	1
10138	Fluoranthene	206-44-0	1.0	J 0.67	1.7	1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67	U 0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67	U 0.67	1.7	1
10138	Naphthalene	91-20-3	0.67	U 0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0	U 6.0	18	1
10138	Phenanthrene	85-01-8	0.67	U 0.67	1.7	1
10138	Pyrene	129-00-0	1.0	J 0.67	1.7	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.6	1
10401	Dalapon	75-99-0	4.5	U 4.5	9.1	1
10401	2,4-DB	94-82-6	2.2	U 2.2	2.2	1
10401	Dicamba	1918-00-9	0.40	U 0.40	1.2	1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4	1
10401	2,4-DP (Dichloroprop)	120-36-5	0.81	U 0.81	1.7	1
10401	MCPA	94-74-6	77	U 77	250	1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250	1
10401	2,4,5-T	93-76-5	0.59	U 0.59	0.59	1
10401	2,4,5-TP	93-72-1	0.25	U 0.25	0.25	1

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: 2,4,5-TP, 2,4,5-T, and 2,4-DB.

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-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422529
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5708 SDG#: DE257-08

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	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.034 U	0.034	0.17	1
01363	Chlordane	57-74-9	1.9 J	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34	1
01363	p,p-DDE	72-55-9	0.78	0.067	0.34	1
01363	p,p-DDT	50-29-3	0.64	0.067	0.34	1
01363	Delta BHC	319-86-8	0.036 U	0.036	0.17	1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34	1
01363	Endrin	72-20-8	0.067 U	0.067	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.067 U	0.067	0.34	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.034 U	0.034	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34	1
01363	Toxaphene	8001-35-2	4.9 U	4.9	6.7	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank, Laboratory Control Sample, and this sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	3.3 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	1.2 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.5 J	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,200	6.08	20.1	1
07914	Boron	7440-42-8	8.27	0.362	5.03	1
01650	Calcium	7440-70-2	3,100	2.51	20.1	1
01654	Iron	7439-89-6	22,700	2.62	20.1	1
01656	Lithium	7439-93-2	16.3	0.62	2.0	1
01657	Magnesium	7439-95-4	4,860	0.442	10.1	1
06958	Manganese	7439-96-5	257	0.0362	0.503	1
10145	Phosphorus	7723-14-0	594	0.352	10.1	1

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

Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422529
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5708 SDG#: DE257-08

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	
01662	Potassium	7440-09-7	2,500	11.4	50.3	1
01667	Sodium	7440-23-5	87.7 J	5.98	101	1
07968	Strontium	7440-24-6	24.5	0.0251	0.503	1
06969	Tin	7440-31-5	2.67 J	0.322	10.1	1
06970	Titanium	7440-32-6	1,180	0.0714	1.01	1
10146	Zirconium	7440-67-7	6.09	0.462	5.03	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.271	0.0722	0.195	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.01	0.0781	0.390	2
06126	Barium	7440-39-3	79.1	0.103	0.390	2
06127	Beryllium	7440-41-7	0.643	0.0156	0.0976	2
06128	Cadmium	7440-43-9	0.203	0.0430	0.0976	2
06131	Chromium	7440-47-3	37.6	0.117	0.390	2
06132	Cobalt	7440-48-4	6.77	0.0195	0.0976	2
06133	Copper	7440-50-8	7.44	0.0781	0.390	2
06135	Lead	7439-92-1	14.2	0.010	0.195	2
06138	Molybdenum	7439-98-7	0.705	0.0488	0.0976	2
06139	Nickel	7440-02-0	12.7	0.0976	0.390	2
06141	Selenium	7782-49-2	0.204 J	0.0566	0.390	2
06142	Silver	7440-22-4	0.0242 J	0.0139	0.0976	2
06145	Thallium	7440-28-0	0.184	0.0293	0.0976	2
06148	Vanadium	7440-62-2	64.8	0.0215	0.0976	2
06149	Zinc	7440-66-6	57.8	0.547	2.93	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0121 J	0.0069	0.0981	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.81 U	0.81	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.1	0.20	0.98	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.20	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	1.5	0.50	0.50	1

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



Analysis Report

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Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422529
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5708 SDG#: DE257-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%		
	"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	11283SLA026	10/14/2011 19:53	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 20:04	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/08/2011 21:56	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 21:55	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 19:33	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:12	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:02	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2

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

Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422529
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5708 SDG#: DE257-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:02	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:02	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:02	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:49	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 02:34	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/06/2011 23:04	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 15:47	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422530
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5709 SDG#: DE257-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

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



Analysis Report

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Page 2 of 6

Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422530
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5709 SDG#: DE257-09

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	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67	U 0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.33	U 0.33	1.7	1
10138	Anthracene	120-12-7	0.33	U 0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.67	U 0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.87	J 0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.5	J 0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67	U 0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	3.1	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	11	J 6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0	U 6.0	18	1
10138	Chrysene	218-01-9	1.2	J 0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67	U 0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0	U 6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0	U 6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J 6.0	18	1
10138	Fluoranthene	206-44-0	1.6	J 0.67	1.7	1
10138	Fluorene	86-73-7	0.67	U 0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67	U 0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67	U 0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67	U 0.67	1.7	1
10138	Naphthalene	91-20-3	0.77	J 0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67	U 0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0	U 6.0	18	1
10138	Phenanthrene	85-01-8	0.77	J 0.67	1.7	1
10138	Pyrene	129-00-0	1.3	J 0.67	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.2	U 1.2	3.7	1
10401	Dalapon	75-99-0	4.5	U 4.5	9.1	1
10401	2,4-DB	94-82-6	2.4	U 2.4	2.4	1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2	1
10401	Dinoseb	88-85-7	0.81	U 0.81	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81	U 0.81	1.7	1
10401	MCPA	94-74-6	77	U 77	250	1
10401	MCPP (Mecoprop)	93-65-2	76	U 76	250	1
10401	2,4,5-T	93-76-5	0.083	U 0.083	0.17	1
10401	2,4,5-TP	93-72-1	0.21	U 0.21	0.21	1

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: 2,4,5-TP, and 2,4-DB.

Perchlorate	SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg

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

Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422530
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5709 SDG#: DE257-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Perchlorate						
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007 14797-73-0	ug/kg 2.1 U	ug/kg 2.1	ug/kg 5.1	1
Pesticides/PCBs						
		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.034 U	0.034	0.17	1
01363	Chlordane	57-74-9	1.9 J	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34	1
01363	p,p-DDE	72-55-9	0.53	0.067	0.34	1
01363	p,p-DDT	50-29-3	0.56	0.067	0.34	1
01363	Delta BHC	319-86-8	0.038 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34	1
01363	Endrin	72-20-8	0.067 U	0.067	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.17 U	0.17	0.34	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.056 U	0.056	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34	1
01363	Toxaphene	8001-35-2	5.0 U	5.0	6.7	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs						
		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	3.1 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	1.6 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	0.39 U	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals						
		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,700	6.05	20.0	1
07914	Boron	7440-42-8	4.38 J	0.360	5.00	1
01650	Calcium	7440-70-2	2,820	2.50	20.0	1
01654	Iron	7439-89-6	17,900	2.61	20.0	1
01656	Lithium	7439-93-2	25.1	0.62	2.0	1

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

Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422530
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5709 SDG#: DE257-09

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	
01657	Magnesium	7439-95-4	4,490	0.440	9.99	1
06958	Manganese	7439-96-5	258	0.0360	0.500	1
10145	Phosphorus	7723-14-0	340	0.350	9.99	1
01662	Potassium	7440-09-7	2,850	11.3	50.0	1
01667	Sodium	7440-23-5	69.5 J	5.95	99.9	1
07968	Strontium	7440-24-6	10.8	0.0250	0.500	1
06969	Tin	7440-31-5	2.57 J	0.320	9.99	1
06970	Titanium	7440-32-6	1,110	0.0710	0.999	1
10146	Zirconium	7440-67-7	0.970 J	0.460	5.00	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.105 J	0.0732	0.198	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.51	0.0792	0.396	2
06126	Barium	7440-39-3	97.4	0.105	0.396	2
06127	Beryllium	7440-41-7	0.523	0.0158	0.0990	2
06128	Cadmium	7440-43-9	0.125	0.0435	0.0990	2
06131	Chromium	7440-47-3	16.6	0.119	0.396	2
06132	Cobalt	7440-48-4	6.13	0.0198	0.0990	2
06133	Copper	7440-50-8	7.88	0.0792	0.396	2
06135	Lead	7439-92-1	5.33	0.0101	0.198	2
06138	Molybdenum	7439-98-7	0.439	0.0495	0.0990	2
06139	Nickel	7440-02-0	12.0	0.0990	0.396	2
06141	Selenium	7782-49-2	0.0809 J	0.0574	0.396	2
06142	Silver	7440-22-4	0.0787 J	0.0141	0.0990	2
06145	Thallium	7440-28-0	0.284	0.0297	0.0990	2
06148	Vanadium	7440-62-2	34.9	0.0218	0.0990	2
06149	Zinc	7440-66-6	72.7	0.554	2.97	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0979	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.81	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.48 J	0.20	0.99	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.33	0.0100	0.0100	1

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

Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422530
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5709 SDG#: DE257-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	1.9	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	11283SLA026	10/14/2011 20:19	Matthew S Woods	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/13/2011 23:08	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/08/2011 22:23	John W Perkins	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	112770016A	10/05/2011 19:41	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 22:10	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 19:52	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	112770016A	10/05/2011 09:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1

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

Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422530
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5709 SDG#: DE257-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:16	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:06	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:06	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:06	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:06	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:50	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 02:47	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/06/2011 23:27	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 15:53	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Page 1 of 6

Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422531
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5710 SDG#: DE257-10

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	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422531
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5710 SDG#: DE257-10

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	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67 U	0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.33 U	0.33	1.7	1
10138	Anthracene	120-12-7	0.33 U	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.67 U	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.84 J	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.4 J	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67 U	0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	2.7	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0 U	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0 U	6.0	18	1
10138	Chrysene	218-01-9	1.2 J	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67 U	0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0 U	6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0 U	6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.5 J	6.0	18	1
10138	Fluoranthene	206-44-0	1.7	0.67	1.7	1
10138	Fluorene	86-73-7	0.67 U	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67 U	0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67 U	0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67 U	0.67	1.7	1
10138	Naphthalene	91-20-3	0.96 J	0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67 U	0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0 U	6.0	18	1
10138	Phenanthrene	85-01-8	1.1 J	0.67	1.7	1
10138	Pyrene	129-00-0	1.5 J	0.67	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.2 U	1.2	3.6	1
10401	Dalapon	75-99-0	4.5 U	4.5	9.1	1
10401	2,4-DB	94-82-6	1.3 U	1.3	1.7	1
10401	Dicamba	1918-00-9	0.41 U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.81 U	0.81	2.4	1
10401	2,4-DP (Dichloroprop)	120-36-5	0.81 U	0.81	1.7	1
10401	MCPA	94-74-6	77 U	77	250	1
10401	MCPP (Mecoprop)	93-65-2	76 U	76	250	1
10401	2,4,5-T	93-76-5	0.083 U	0.083	0.17	1
10401	2,4,5-TP	93-72-1	0.30	0.076	0.17	1

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**

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

Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422531
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Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Suite 210

Chantilly VA 20151

E5710 SDG#: DE257-10

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	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.034 U	0.034	0.17	1
01363	Chlordane	57-74-9	2.0 J	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.084 U	0.084	0.34	1
01363	p,p-DDE	72-55-9	0.31 J	0.067	0.34	1
01363	p,p-DDT	50-29-3	0.56	0.067	0.34	1
01363	Delta BHC	319-86-8	0.071 J	0.036	0.17	1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34	1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34	1
01363	Endrin	72-20-8	0.067 U	0.067	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.089 J	0.067	0.34	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.034 U	0.034	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34	1
01363	Toxaphene	8001-35-2	3.9 U	3.9	6.7	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	3.5	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	2.0	0.34	1.7	1
10225	PCB-1260	11096-82-5	1.8	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

The surrogate recovery was outside the client specified QC limits. However, the recovery is within our in house statistical limits of 53-142% for DCB. The data is reported

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,500	6.14	20.3	1
07914	Boron	7440-42-8	7.25	0.365	5.08	1
01650	Calcium	7440-70-2	3,230	2.54	20.3	1
01654	Iron	7439-89-6	21,900	2.65	20.3	1
01656	Lithium	7439-93-2	15.6	0.63	2.0	1
01657	Magnesium	7439-95-4	4,660	0.447	10.2	1

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

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SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422531
LLI Group # 1268901
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E5710 SDG#: DE257-10

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	
06958	Manganese	7439-96-5	282	0.0365	0.508	1
10145	Phosphorus	7723-14-0	586	0.355	10.2	1
01662	Potassium	7440-09-7	2,680	11.5	50.8	1
01667	Sodium	7440-23-5	88.4 J	6.04	102	1
07968	Strontium	7440-24-6	26.8	0.0254	0.508	1
06969	Tin	7440-31-5	2.78 J	0.325	10.2	1
06970	Titanium	7440-32-6	1,160	0.0721	1.02	1
10146	Zirconium	7440-67-7	5.85	0.467	5.08	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.294	0.0737	0.199	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.31	0.0796	0.398	2
06126	Barium	7440-39-3	90.8	0.106	0.398	2
06127	Beryllium	7440-41-7	0.694	0.0159	0.0995	2
06128	Cadmium	7440-43-9	0.221	0.0438	0.0995	2
06131	Chromium	7440-47-3	38.3	0.119	0.398	2
06132	Cobalt	7440-48-4	7.48	0.0199	0.0995	2
06133	Copper	7440-50-8	8.34	0.0796	0.398	2
06135	Lead	7439-92-1	14.8	0.0102	0.199	2
06138	Molybdenum	7439-98-7	0.696	0.0498	0.0995	2
06139	Nickel	7440-02-0	13.4	0.0995	0.398	2
06141	Selenium	7782-49-2	0.222 J	0.0577	0.398	2
06142	Silver	7440-22-4	0.0309 J	0.0141	0.0995	2
06145	Thallium	7440-28-0	0.216	0.0299	0.0995	2
06148	Vanadium	7440-62-2	65.4	0.0219	0.0995	2
06149	Zinc	7440-66-6	61.2	0.557	2.99	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0105 J	0.0069	0.0983	1
Wet Chemistry EPA 300.0						
	mg/kg		mg/kg	mg/kg		
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.81 U	0.81	1.0	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.68 J	0.20	0.99	1
SW-846 9045C modified						
	Std. Units		Std. Units	Std. Units		
00394	17a pH by 9045C	n.a.	5.96	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
	%		%	%		

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

Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422531
LLI Group # 1268901
Account # 13013

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E5710 SDG#: DE257-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	1.5	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	11283SLA026	10/15/2011 19:12	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/13/2011 23:41	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/08/2011 22:51	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 22:25	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 20:10	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:20	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:09	Choon Y Tian	2

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

Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422531
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Project Name: SSFL Area IV Collocated Soil Sampling

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E5710 SDG#: DE257-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:09	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:09	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:09	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:52	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 02:59	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/06/2011 23:50	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 16:27	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Page 1 of 6

Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422532
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5711 SDG#: DE257-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422532
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5711 SDG#: DE257-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67 U	0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.33 U	0.33	1.7	1
10138	Anthracene	120-12-7	0.33 U	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.67 U	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.89 J	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.5 J	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67 U	0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	3.7	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0 U	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0 U	6.0	18	1
10138	Chrysene	218-01-9	1.3 J	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67 U	0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0 U	6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0 U	6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.0 U	6.0	18	1
10138	Fluoranthene	206-44-0	1.8	0.67	1.7	1
10138	Fluorene	86-73-7	0.67 U	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67 U	0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67 U	0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67 U	0.67	1.7	1
10138	Naphthalene	91-20-3	0.84 J	0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67 U	0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0 U	6.0	18	1
10138	Phenanthrene	85-01-8	0.90 J	0.67	1.7	1
10138	Pyrene	129-00-0	1.4 J	0.67	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	2.6 U	2.6	3.6	1
10401	Dalapon	75-99-0	4.4 U	4.4	9.1	1
10401	2,4-DB	94-82-6	56 U	56	56	5
10401	Dicamba	1918-00-9	0.40 U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.81 U	0.81	2.4	1
10401	2,4-DP (Dichloroprop)	120-36-5	0.81 U	0.81	1.7	1
10401	MCPA	94-74-6	77 U	77	250	1
10401	MCPP (Mecoprop)	93-65-2	76 U	76	250	1
10401	2,4,5-T	93-76-5	0.32 U	0.32	0.32	1
10401	2,4,5-TP	93-72-1	0.19	0.076	0.17	1
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-D, 2,4,5-T, and 2,4-DB.						
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-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422532
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5711 SDG#: DE257-11

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	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.078 J	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.034 U	0.034	0.17	1
01363	Chlordane	57-74-9	3.0 J	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34	1
01363	p,p-DDE	72-55-9	0.42	0.067	0.34	1
01363	p,p-DDT	50-29-3	0.63	0.067	0.34	1
01363	Delta BHC	319-86-8	0.061 J	0.036	0.17	1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34	1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34	1
01363	Endrin	72-20-8	0.067 U	0.067	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.13 U	0.13	0.34	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.047 U	0.047	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34	1
01363	Toxaphene	8001-35-2	3.8 U	3.8	6.7	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	3.1 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	2.0	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.2 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

The surrogate recovery was outside the client specified QC limits. However, the recovery is within our in house statistical limits of 53-142% for DCB. The data is reported

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,800	6.08	20.1	1
07914	Boron	7440-42-8	7.30	0.361	5.02	1
01650	Calcium	7440-70-2	3,450	2.51	20.1	1
01654	Iron	7439-89-6	22,100	2.62	20.1	1
01656	Lithium	7439-93-2	16.7	0.62	2.0	1
01657	Magnesium	7439-95-4	4,590	0.442	10.0	1

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

Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422532
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5711 SDG#: DE257-11

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	
06958	Manganese	7439-96-5	298	0.0361	0.502	1
10145	Phosphorus	7723-14-0	660	0.351	10.0	1
01662	Potassium	7440-09-7	2,660	11.3	50.2	1
01667	Sodium	7440-23-5	91.2 J	5.97	100	1
07968	Strontium	7440-24-6	24.9	0.0251	0.502	1
06969	Tin	7440-31-5	2.63 J	0.321	10.0	1
06970	Titanium	7440-32-6	1,200	0.0713	1.00	1
10146	Zirconium	7440-67-7	6.14	0.462	5.02	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.307	0.0736	0.199	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.13	0.0795	0.398	2
06126	Barium	7440-39-3	101	0.105	0.398	2
06127	Beryllium	7440-41-7	0.766	0.0159	0.0994	2
06128	Cadmium	7440-43-9	0.297	0.0437	0.0994	2
06131	Chromium	7440-47-3	46.2	0.119	0.398	2
06132	Cobalt	7440-48-4	9.03	0.0199	0.0994	2
06133	Copper	7440-50-8	9.76	0.0795	0.398	2
06135	Lead	7439-92-1	18.9	0.0101	0.199	2
06138	Molybdenum	7439-98-7	0.792	0.0497	0.0994	2
06139	Nickel	7440-02-0	15.9	0.0994	0.398	2
06141	Selenium	7782-49-2	0.252 J	0.0577	0.398	2
06142	Silver	7440-22-4	0.0320 J	0.0141	0.0994	2
06145	Thallium	7440-28-0	0.248	0.0298	0.0994	2
06148	Vanadium	7440-62-2	77.0	0.0219	0.0994	2
06149	Zinc	7440-66-6	73.5	0.557	2.98	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0133 J	0.0067	0.0947	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.81 U	0.81	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 J	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.05	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	

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



Analysis Report

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Page 5 of 6

Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422532
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5711 SDG#: DE257-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	1.4	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	11283SLA026	10/15/2011 19:36	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/14/2011 00:14	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/08/2011 23:18	John W Perkins	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/11/2011 22:03	John W Perkins	5
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 22:40	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 20:29	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:24	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2

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

Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422532
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5711 SDG#: DE257-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:12	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:12	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:12	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:12	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:56	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 03:11	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/07/2011 00:13	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 16:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401A	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422533
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5712 SDG#: DE257-12

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	170	U 170	500	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	500	1
04688	Benzyl alcohol	100-51-6	170	U 170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	500	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	500	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422533
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5712 SDG#: DE257-12

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	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67 U	0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.67 U	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.74 J	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	4.5	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67 U	0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67 U	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0 U	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0 U	6.0	18	1
10138	Chrysene	218-01-9	0.81 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67 U	0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0 U	6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0 U	6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5 J	6.0	18	1
10138	Fluoranthene	206-44-0	1.1 J	0.67	1.7	1
10138	Fluorene	86-73-7	0.67 U	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67 U	0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67 U	0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67 U	0.67	1.7	1
10138	Naphthalene	91-20-3	0.73 J	0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67 U	0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0 U	6.0	18	1
10138	Phenanthrene	85-01-8	0.75 J	0.67	1.7	1
10138	Pyrene	129-00-0	1.1 J	0.67	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.7	1
10401	Dalapon	75-99-0	4.5 U	4.5	9.1	1
10401	2,4-DB	94-82-6	36 U	36	36	2
10401	Dicamba	1918-00-9	0.41 U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.81 U	0.81	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.81 U	0.81	1.7	1
10401	MCPA	94-74-6	160 U	160	250	1
10401	MCPP (Mecoprop)	93-65-2	76 U	76	250	1
10401	2,4,5-T	93-76-5	0.85 U	0.85	0.85	1
10401	2,4,5-TP	93-72-1	0.27	0.076	0.17	1
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. Various compounds were affected.						
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-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422533
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5712 SDG#: DE257-12

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	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	1.7 J	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35	1
01363	p,p-DDE	72-55-9	0.16 U	0.16	0.35	1
01363	p,p-DDT	50-29-3	0.19 U	0.19	0.35	1
01363	Delta BHC	319-86-8	0.042 U	0.042	0.17	1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35	1
01363	Endrin	72-20-8	0.067 U	0.067	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.15 U	0.15	0.35	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.35	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.067 U	0.067	0.35	1
01363	Toxaphene	8001-35-2	3.5 U	3.5	6.7	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.9 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	1.2 J	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

The surrogate recovery was outside the client specified QC limits. However, the recovery is within our in house statistical limits of 53-142% for DCB. The data is reported

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,600	6.12	20.2	1
07914	Boron	7440-42-8	7.27	0.364	5.06	1
01650	Calcium	7440-70-2	3,010	2.53	20.2	1
01654	Iron	7439-89-6	21,300	2.64	20.2	1
01656	Lithium	7439-93-2	17.2	0.63	2.0	1
01657	Magnesium	7439-95-4	4,330	0.445	10.1	1

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

Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422533
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5712 SDG#: DE257-12

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	
06958	Manganese	7439-96-5	294	0.0364	0.506	1
10145	Phosphorus	7723-14-0	585	0.354	10.1	1
01662	Potassium	7440-09-7	3,170	11.4	50.6	1
01667	Sodium	7440-23-5	85.1 J	6.02	101	1
07968	Strontium	7440-24-6	25.1	0.0253	0.506	1
06969	Tin	7440-31-5	2.52 J	0.324	10.1	1
06970	Titanium	7440-32-6	1,200	0.0719	1.01	1
10146	Zirconium	7440-67-7	3.72 J	0.466	5.06	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.229	0.0742	0.200	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.71	0.0802	0.401	2
06126	Barium	7440-39-3	93.1	0.106	0.401	2
06127	Beryllium	7440-41-7	0.739	0.0160	0.100	2
06128	Cadmium	7440-43-9	0.240	0.0441	0.100	2
06131	Chromium	7440-47-3	37.9	0.120	0.401	2
06132	Cobalt	7440-48-4	7.23	0.0200	0.100	2
06133	Copper	7440-50-8	8.80	0.0802	0.401	2
06135	Lead	7439-92-1	14.2	0.0102	0.200	2
06138	Molybdenum	7439-98-7	0.839	0.0501	0.100	2
06139	Nickel	7440-02-0	14.0	0.100	0.401	2
06141	Selenium	7782-49-2	0.217 J	0.0581	0.401	2
06142	Silver	7440-22-4	0.0405 J	0.0142	0.100	2
06145	Thallium	7440-28-0	0.210	0.0301	0.100	2
06148	Vanadium	7440-62-2	63.5	0.0221	0.100	2
06149	Zinc	7440-66-6	61.9	0.561	3.01	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0081 J	0.0070	0.0997	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.93 J	0.81	1.0	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.7	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.19 U	0.19	0.97	1
SW-846 9045C modified						
	Std. Units		Std. Units	Std. Units		
00394	17a pH by 9045C	n.a.	5.85	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	

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

Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422533
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5712 SDG#: DE257-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/15/2011 20:01	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 22:13	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/08/2011 23:45	John W Perkins	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/11/2011 22:30	John W Perkins	2
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/13/2011 03:36	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 20:48	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:28	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2

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

Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422533
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5712 SDG#: DE257-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:15	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:15	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:15	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:57	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201A	10/14/2011 03:23	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201A	10/07/2011 00:36	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 16:47	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201A	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201A	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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

Page 1 of 6

Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422534
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5713 SDG#: DE257-13

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	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422534
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5713 SDG#: DE257-13

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	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67 U	0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.33 U	0.33	1.7	1
10138	Anthracene	120-12-7	0.33 U	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 J	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.1 J	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	4.7	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67 U	0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67 U	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.0 U	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0 U	6.0	18	1
10138	Chrysene	218-01-9	1.4 J	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67 U	0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0 U	6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0 U	6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	130	6.0	18	1
10138	Fluoranthene	206-44-0	1.7	0.67	1.7	1
10138	Fluorene	86-73-7	0.67 U	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67 U	0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67 U	0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67 U	0.67	1.7	1
10138	Naphthalene	91-20-3	0.80 J	0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67 U	0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0 U	6.0	18	1
10138	Phenanthrene	85-01-8	1.0 J	0.67	1.7	1
10138	Pyrene	129-00-0	1.6 J	0.67	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.6	1
10401	Dalapon	75-99-0	4.4 U	4.4	9.1	1
10401	2,4-DB	94-82-6	18 U	18	18	1
10401	Dicamba	1918-00-9	0.40 U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.81 U	0.81	2.4	1
10401	2,4-DP (Dichloroprop)	120-36-5	1.0 J	0.81	1.7	1
10401	MCPA	94-74-6	77 U	77	250	1
10401	MCPP (Mecoprop)	93-65-2	76 U	76	250	1
10401	2,4,5-T	93-76-5	0.29 U	0.29	0.29	1
10401	2,4,5-TP	93-72-1	0.29	0.076	0.17	1

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-D, 2,4,5-T, and 2,4-DB.

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-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422534
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5713 SDG#: DE257-13

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	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.034 U	0.034	0.17	1
01363	Chlordane	57-74-9	1.7 J	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34	1
01363	p,p-DDE	72-55-9	0.35	0.067	0.34	1
01363	p,p-DDT	50-29-3	0.42	0.067	0.34	1
01363	Delta BHC	319-86-8	0.036 U	0.036	0.17	1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34	1
01363	Endrin	72-20-8	0.067 U	0.067	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.10 U	0.10	0.34	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.034 U	0.034	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34	1
01363	Toxaphene	8001-35-2	3.7 U	3.7	6.7	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	2.4 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.92 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	0.92 J	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,200	6.02	19.9	1
07914	Boron	7440-42-8	7.05	0.358	4.98	1
01650	Calcium	7440-70-2	3,290	2.49	19.9	1
01654	Iron	7439-89-6	22,400	2.60	19.9	1
01656	Lithium	7439-93-2	18.3	0.62	2.0	1
01657	Magnesium	7439-95-4	4,840	0.438	9.95	1
06958	Manganese	7439-96-5	306	0.0358	0.498	1
10145	Phosphorus	7723-14-0	717	0.348	9.95	1

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

Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422534
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5713 SDG#: DE257-13

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	
01662	Potassium	7440-09-7	2,730	11.2	49.8	1
01667	Sodium	7440-23-5	93.6 J	5.92	99.5	1
07968	Strontium	7440-24-6	26.7	0.0249	0.498	1
06969	Tin	7440-31-5	2.71 J	0.319	9.95	1
06970	Titanium	7440-32-6	1,210	0.0707	0.995	1
10146	Zirconium	7440-67-7	2.65 J	0.458	4.98	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.242	0.0744	0.201	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.58	0.0804	0.402	2
06126	Barium	7440-39-3	76.9	0.107	0.402	2
06127	Beryllium	7440-41-7	0.584	0.0161	0.101	2
06128	Cadmium	7440-43-9	0.210	0.0442	0.101	2
06131	Chromium	7440-47-3	31.3	0.121	0.402	2
06132	Cobalt	7440-48-4	5.97	0.0201	0.101	2
06133	Copper	7440-50-8	7.35	0.0804	0.402	2
06135	Lead	7439-92-1	11.9	0.0103	0.201	2
06138	Molybdenum	7439-98-7	0.685	0.0503	0.101	2
06139	Nickel	7440-02-0	11.6	0.101	0.402	2
06141	Selenium	7782-49-2	0.216 J	0.0583	0.402	2
06142	Silver	7440-22-4	0.0258 J	0.0143	0.101	2
06145	Thallium	7440-28-0	0.186	0.0302	0.101	2
06148	Vanadium	7440-62-2	53.2	0.0221	0.101	2
06149	Zinc	7440-66-6	51.4	0.563	3.02	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0114 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.80 U	0.80	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.53 J	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	5.66	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	1.5	0.50	0.50	1

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



Analysis Report

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Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422534
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5713 SDG#: DE257-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%		
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/15/2011 20:26	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 22:45	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 00:13	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 22:55	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 21:07	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:32	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2

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

Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422534
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5713 SDG#: DE257-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:18	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:58	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 04:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 02:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 17:07	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422535
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5714 SDG#: DE257-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422535
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5714 SDG#: DE257-14

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	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67 U	0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.67 U	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.88 J	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	4.2	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.67 U	0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67 U	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	1.2 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.67 U	0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	15 J	6.1	18	1
10138	Fluoranthene	206-44-0	1.5 J	0.67	1.7	1
10138	Fluorene	86-73-7	0.67 U	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67 U	0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67 U	0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67 U	0.67	1.7	1
10138	Naphthalene	91-20-3	0.69 J	0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67 U	0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	1.0 J	0.67	1.7	1
10138	Pyrene	129-00-0	1.5 J	0.67	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	4.5 U	4.5	9.2	1
10401	2,4-DB	94-82-6	14 U	14	14	1
10401	Dicamba	1918-00-9	0.41 U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.82 U	0.82	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.82 U	0.82	1.7	1
10401	MCPA	94-74-6	78 U	78	260	1
10401	MCPP (Mecoprop)	93-65-2	77 U	77	260	1
10401	2,4,5-T	93-76-5	0.48 U	0.48	0.48	1
10401	2,4,5-TP	93-72-1	0.14 U	0.14	0.17	1

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: 2,4,5-TP, 2,4,5-T, and 2,4-DB.

Perchlorate **SW-846 6850 1/2007** **ug/kg** **ug/kg** **ug/kg**

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

Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422535
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5714 SDG#: DE257-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Perchlorate						
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007 14797-73-0	ug/kg 2.2 U	ug/kg 2.2	ug/kg 5.1	1
Pesticides/PCBs						
		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	1.8 J	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.068 U	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.24 J	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.31 J	0.068	0.35	1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.095 U	0.095	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.8	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs						
		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.5 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	3.5	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

The surrogate recovery was outside the client specified QC limits. However, the recovery is within our in house statistical limits of 53-142% for DCB. The data is reported

Metals						
		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,700	5.97	19.7	1
07914	Boron	7440-42-8	7.07	0.355	4.94	1

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

Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422535
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5714 SDG#: DE257-14

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	3,290	2.47	19.7	1
01654	Iron	7439-89-6	22,500	2.58	19.7	1
01656	Lithium	7439-93-2	17.6	0.61	2.0	1
01657	Magnesium	7439-95-4	4,560	0.434	9.87	1
06958	Manganese	7439-96-5	273	0.0355	0.494	1
10145	Phosphorus	7723-14-0	643	0.346	9.87	1
01662	Potassium	7440-09-7	3,100	11.2	49.4	1
01667	Sodium	7440-23-5	84.7 J	5.87	98.7	1
07968	Strontium	7440-24-6	25.2	0.0247	0.494	1
06969	Tin	7440-31-5	2.74 J	0.316	9.87	1
06970	Titanium	7440-32-6	1,220	0.0701	0.987	1
10146	Zirconium	7440-67-7	5.38	0.454	4.94	1
		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.305	0.0731	0.197	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.25	0.0790	0.395	2
06126	Barium	7440-39-3	101	0.105	0.395	2
06127	Beryllium	7440-41-7	0.732	0.0158	0.0987	2
06128	Cadmium	7440-43-9	0.279	0.0434	0.0987	2
06131	Chromium	7440-47-3	39.8	0.118	0.395	2
06132	Cobalt	7440-48-4	8.50	0.0197	0.0987	2
06133	Copper	7440-50-8	9.03	0.0790	0.395	2
06135	Lead	7439-92-1	11.6	0.0101	0.197	2
06138	Molybdenum	7439-98-7	0.779	0.0494	0.0987	2
06139	Nickel	7440-02-0	15.5	0.0987	0.395	2
06141	Selenium	7782-49-2	0.241 J	0.0573	0.395	2
06142	Silver	7440-22-4	0.0297 J	0.0140	0.0987	2
06145	Thallium	7440-28-0	0.233	0.0296	0.0987	2
06148	Vanadium	7440-62-2	71.2	0.0217	0.0987	2
06149	Zinc	7440-66-6	65.7	0.553	2.96	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0472 J	0.0070	0.0991	1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.82 U	0.82	1.0	1
		EPA 314.0	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.8	1
		SW-846 7199	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.0	0.21	1.0	1

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

Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422535
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5714 SDG#: DE257-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry			SW-846 9045C modified	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.10	0.0100	0.0100	1
Wet Chemistry			EPA 160.3 modified	%	%	
11624	Moisture Content by 160.3	n.a.	2.6	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	11283SLA026	10/15/2011 15:03	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 23:17	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 00:40	John W Perkins	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	112770016A	10/05/2011 19:53	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 23:10	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 21:26	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katherine V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	112770016A	10/05/2011 09:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1

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

Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422535
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5714 SDG#: DE257-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:44	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 07:59	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 04:49	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 02:54	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 17:21	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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

Page 1 of 6

Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422536
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5715 SDG#: DE257-15

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	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422536
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5715 SDG#: DE257-15

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	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.85 J	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	5.9	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	1.2 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	10 J	6.2	19	1
10138	Fluoranthene	206-44-0	1.4 J	0.69	1.7	1
10138	Fluorene	86-73-7	0.81 J	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.75 J	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	1.1 J	0.69	1.7	1
10138	Pyrene	129-00-0	1.3 J	0.69	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.8	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.4	1
10401	2,4-DB	94-82-6	8.9 U	8.9	8.9	1
10401	Dicamba	1918-00-9	0.97 U	0.97	1.3	1
10401	Dinoseb	88-85-7	0.84 U	0.84	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.84 U	0.84	1.8	1
10401	MCPA	94-74-6	150 U	150	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

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: dicamba, MCPA and 2,4-DB.

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-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422536
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5715 SDG#: DE257-15

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	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.076 J	0.036	0.17	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.17	1
01363	Chlordane	57-74-9	2.5 J	0.84	3.6	1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.36	1
01363	p,p-DDE	72-55-9	0.41 U	0.41	0.41	1
01363	p,p-DDT	50-29-3	0.59	0.069	0.36	1
01363	Delta BHC	319-86-8	0.047 U	0.047	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.36	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.36	1
01363	Endrin	72-20-8	0.069 U	0.069	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.16 U	0.16	0.36	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.36	1
01363	Heptachlor	76-44-8	0.077 J	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.064 U	0.064	0.17	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.7	1
01363	Mirex	2385-85-5	0.15 U	0.15	0.36	1
01363	Toxaphene	8001-35-2	4.3 U	4.3	6.9	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5	1
10225	Aroclor 5460	11126-42-4	2.9 J	1.0	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.2	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

The surrogate recovery was outside the client specified QC limits. However, the recovery is within our in house statistical limits of 53-142% for DCB. The data is reported

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,600	6.24	20.6	1
07914	Boron	7440-42-8	7.67	0.371	5.15	1
01650	Calcium	7440-70-2	3,460	2.58	20.6	1
01654	Iron	7439-89-6	22,400	2.69	20.6	1
01656	Lithium	7439-93-2	17.0	0.64	2.1	1
01657	Magnesium	7439-95-4	4,630	0.454	10.3	1

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

Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422536
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5715 SDG#: DE257-15

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	
06958	Manganese	7439-96-5	309	0.0371	0.515	1
10145	Phosphorus	7723-14-0	642	0.361	10.3	1
01662	Potassium	7440-09-7	3,510	11.6	51.5	1
01667	Sodium	7440-23-5	80.5 J	6.13	103	1
07968	Strontium	7440-24-6	27.1	0.0258	0.515	1
06969	Tin	7440-31-5	2.71 J	0.330	10.3	1
06970	Titanium	7440-32-6	1,220	0.0732	1.03	1
10146	Zirconium	7440-67-7	4.97 J	0.474	5.15	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.287	0.0770	0.208	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.99	0.0833	0.416	2
06126	Barium	7440-39-3	104	0.110	0.416	2
06127	Beryllium	7440-41-7	0.768	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.286	0.0458	0.104	2
06131	Chromium	7440-47-3	38.1	0.125	0.416	2
06132	Cobalt	7440-48-4	8.95	0.0208	0.104	2
06133	Copper	7440-50-8	9.83	0.0833	0.416	2
06135	Lead	7439-92-1	13.3	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.726	0.0521	0.104	2
06139	Nickel	7440-02-0	15.7	0.104	0.416	2
06141	Selenium	7782-49-2	0.220 J	0.0604	0.416	2
06142	Silver	7440-22-4	0.0328 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.245	0.0312	0.104	2
06148	Vanadium	7440-62-2	66.9	0.0229	0.104	2
06149	Zinc	7440-66-6	65.4	0.583	3.12	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.83 U	0.83	1.0	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	683	9.5	31.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.73 J	0.19	0.97	1
SW-846 9045C modified						
	Std. Units		Std. Units	Std. Units		
00394	17a pH by 9045C	n.a.	5.87	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	

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

Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422536
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5715 SDG#: DE257-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

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

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	11283SLA026	10/15/2011 15:27	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 23:50	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 01:08	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/13/2011 03:51	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 21:44	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:48	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:30	Choon Y Tian	2

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



Analysis Report

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

Page 6 of 6

Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422536
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5715 SDG#: DE257-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:30	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:30	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:30	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 08:00	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 05:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 12:38	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 17:34	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

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

Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422537
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5716 SDG#: DE257-16

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	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422537
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5716 SDG#: DE257-16

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	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.67 U	0.67	1.7	1
10138	Acenaphthylene	208-96-8	0.33 U	0.33	1.7	1
10138	Anthracene	120-12-7	0.33 U	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	1.1 J	0.67	1.7	1
10138	Benzo(a)pyrene	50-32-8	2.3	0.67	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	13	0.67	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68 J	0.67	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.67 U	0.67	1.7	1
10138	Butylbenzylphthalate	85-68-7	48	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0 U	6.0	18	1
10138	Chrysene	218-01-9	3.5	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	1.0 J	0.67	1.7	1
10138	Diethylphthalate	84-66-2	6.0 U	6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0 U	6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	15 J	6.0	18	1
10138	Fluoranthene	206-44-0	3.6	0.67	1.7	1
10138	Fluorene	86-73-7	1.3 J	0.67	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.67 J	0.67	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.67 U	0.67	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.67 U	0.67	1.7	1
10138	Naphthalene	91-20-3	0.95 J	0.67	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.67 U	0.67	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0 U	6.0	18	1
10138	Phenanthrene	85-01-8	1.4 J	0.67	1.7	1
10138	Pyrene	129-00-0	3.1	0.67	1.7	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	1.2 U	1.2	3.6
10401	Dalapon	75-99-0	4.5 U	4.5	9.1
10401	2,4-DB	94-82-6	8.6 U	8.6	8.6
10401	Dicamba	1918-00-9	0.40 U	0.40	1.2
10401	Dinoseb	88-85-7	0.81 U	0.81	2.4
10401	2,4-DP (Dichlorprop)	120-36-5	0.81 U	0.81	1.7
10401	MCPA	94-74-6	79 U	79	250
10401	MCPP (Mecoprop)	93-65-2	130 U	130	250
10401	2,4,5-T	93-76-5	0.17 U	0.17	0.17
10401	2,4,5-TP	93-72-1	0.085 U	0.085	0.17

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. Various

Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422537
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5716 SDG#: DE257-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
compounds were affected.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	4.4	0.81	3.5	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35	1
01363	p,p-DDE	72-55-9	2.2	0.067	0.35	1
01363	p,p-DDT	50-29-3	2.9	0.067	0.35	1
01363	Delta BHC	319-86-8	0.048 U	0.048	0.17	1
01363	Dieldrin	60-57-1	0.23 U	0.23	0.35	1
01363	Endosulfan I	959-98-8	0.071 U	0.071	0.17	1
01363	Endosulfan II	33213-65-9	0.26 U	0.26	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.35	1
01363	Endrin	72-20-8	0.13 U	0.13	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.99	0.067	0.35	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.35	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.081 U	0.081	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.26 U	0.26	0.35	1
01363	Toxaphene	8001-35-2	18 U	18	18	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

The TCX surrogate recovery is below the client specified client limits of 50-130% for this sample; however the recovery is within the in house limits of 28-121%.

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

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	5.9	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	9.3	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

The surrogate recovery was outside the client specified QC limits. However, the recovery is within our in house statistical limits of 53-142% for DCB. The data is reported

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,600	6.03	19.9	1
07914	Boron	7440-42-8	8.34	0.359	4.99	1

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

Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422537
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5716 SDG#: DE257-16

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	
01650	Calcium	7440-70-2	4,170	2.49	19.9	1
01654	Iron	7439-89-6	22,300	2.60	19.9	1
01656	Lithium	7439-93-2	17.2	0.62	2.0	1
01657	Magnesium	7439-95-4	4,760	0.439	9.97	1
06958	Manganese	7439-96-5	273	0.0359	0.499	1
10145	Phosphorus	7723-14-0	706	0.349	9.97	1
01662	Potassium	7440-09-7	2,390	11.3	49.9	1
01667	Sodium	7440-23-5	97.7 J	5.93	99.7	1
07968	Strontium	7440-24-6	30.7	0.0249	0.499	1
06969	Tin	7440-31-5	2.83 J	0.319	9.97	1
06970	Titanium	7440-32-6	1,140	0.0708	0.997	1
10146	Zirconium	7440-67-7	6.10	0.459	4.99	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.328	0.0745	0.201	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.84	0.0806	0.403	2
06126	Barium	7440-39-3	104	0.107	0.403	2
06127	Beryllium	7440-41-7	0.812	0.0161	0.101	2
06128	Cadmium	7440-43-9	0.338	0.0443	0.101	2
06131	Chromium	7440-47-3	43.4	0.121	0.403	2
06132	Cobalt	7440-48-4	10.6	0.0201	0.101	2
06133	Copper	7440-50-8	10.5	0.0806	0.403	2
06135	Lead	7439-92-1	30.0	0.0103	0.201	2
06138	Molybdenum	7439-98-7	0.808	0.0504	0.101	2
06139	Nickel	7440-02-0	17.8	0.101	0.403	2
06141	Selenium	7782-49-2	0.253 J	0.0584	0.403	2
06142	Silver	7440-22-4	0.0461 J	0.0143	0.101	2
06145	Thallium	7440-28-0	0.245	0.0302	0.101	2
06148	Vanadium	7440-62-2	78.8	0.0222	0.101	2
06149	Zinc	7440-66-6	80.0	0.564	3.02	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0238 J	0.0069	0.0978	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.81	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.4	0.20	0.99	1

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



Analysis Report

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Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422537
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5716 SDG#: DE257-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry			Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.27	0.0100	0.0100	1
Wet Chemistry			%	%	%	
11624	Moisture Content by 160.3	n.a.	1.7	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	11283SLA026	10/15/2011 15:52	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/13/2011 00:22	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 01:35	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/13/2011 02:52	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 22:03	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1

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

Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422537
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5716 SDG#: DE257-16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:52	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:34	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:34	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:34	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:34	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 08:01	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 05:13	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 03:41	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 17:48	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422538
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5717 SDG#: DE257-17

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	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422538
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5717 SDG#: DE257-17

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	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.96 J	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4 J	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.4	1
10401	2,4-DB	94-82-6	0.64 U	0.64	1.8	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.2	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	79 U	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.078 U	0.078	0.18	1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	0.83 U	0.83	3.5	1

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



Analysis Report

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Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422538
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5717 SDG#: DE257-17

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	p,p-DDD	72-54-8	0.069 U	0.069	0.35	1
01363	p,p-DDE	72-55-9	0.069 U	0.069	0.35	1
01363	p,p-DDT	50-29-3	0.069 U	0.069	0.35	1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.35	1
01363	Endrin	72-20-8	0.069 U	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.069 U	0.069	0.35	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.9	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	2.6	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The surrogate recovery was outside the client specified QC limits. However, the recovery is within our in house statistical limits of 53-142% for DCB. The data is reported

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	30,500	6.27	20.7	1
07914	Boron	7440-42-8	13.0	0.373	5.18	1
01650	Calcium	7440-70-2	29,800	2.59	20.7	1
01654	Iron	7439-89-6	34,900	5.41	41.5	2
01656	Lithium	7439-93-2	31.2	0.64	2.1	1
01657	Magnesium	7439-95-4	8,030	0.456	10.4	1
06958	Manganese	7439-96-5	344	0.0373	0.518	1
10145	Phosphorus	7723-14-0	437	0.363	10.4	1
01662	Potassium	7440-09-7	4,150	11.7	51.8	1
01667	Sodium	7440-23-5	109	6.17	104	1
07968	Strontium	7440-24-6	65.3	0.0259	0.518	1
06969	Tin	7440-31-5	2.66 J	0.332	10.4	1

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

Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422538
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5717 SDG#: DE257-17

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	
06970	Titanium	7440-32-6	1,380	0.0736	1.04	1
10146	Zirconium	7440-67-7	3.67 J	0.477	5.18	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.340	0.0760	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	8.25	0.0821	0.411	2
06126	Barium	7440-39-3	130	0.272	1.03	5
06127	Beryllium	7440-41-7	1.13	0.0164	0.103	2
06128	Cadmium	7440-43-9	0.304	0.0452	0.103	2
06131	Chromium	7440-47-3	42.4	0.123	0.411	2
06132	Cobalt	7440-48-4	15.0	0.0205	0.103	2
06133	Copper	7440-50-8	20.5	0.0821	0.411	2
06135	Lead	7439-92-1	12.4	0.0105	0.205	2
06138	Molybdenum	7439-98-7	0.646	0.0513	0.103	2
06139	Nickel	7440-02-0	28.7	0.103	0.411	2
06141	Selenium	7782-49-2	0.194 J	0.0595	0.411	2
06142	Silver	7440-22-4	0.0371 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.448	0.0308	0.103	2
06148	Vanadium	7440-62-2	84.7	0.0226	0.103	2
06149	Zinc	7440-66-6	97.6	0.575	3.08	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.1	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.59	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

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



Analysis Report

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Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422538
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5717 SDG#: DE257-17

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/15/2011 16:17	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/13/2011 00:54	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 02:02	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 23:25	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 22:22	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/12/2011 04:54	Tara L Snyder	2
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 15:56	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:49	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:37	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:37	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2

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

Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422538
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5717 SDG#: DE257-17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:37	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 08:02	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 05:25	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 04:04	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 17:54	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422539
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422539
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68	U 0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68	U 0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.0	J 0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68	U 0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1	U 6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18	1
10138	Chrysene	218-01-9	0.34	U 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.1	U 6.1	18	1
10138	Fluoranthene	206-44-0	0.68	U 0.68	1.7	1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7	1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18	1
10138	Phenanthrene	85-01-8	0.68	U 0.68	1.7	1
10138	Pyrene	129-00-0	0.68	U 0.68	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.2	U 1.2	3.7	1
10401	Dalapon	75-99-0	4.6	U 4.6	9.3	1
10401	2,4-DB	94-82-6	3.5	U 3.5	3.5	1
10401	Dicamba	1918-00-9	0.42	U 0.42	1.2	1
10401	Dinoseb	88-85-7	0.83	U 0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83	U 0.83	1.8	1
10401	MCPA	94-74-6	79	U 79	260	1
10401	MCPP (Mecoprop)	93-65-2	78	U 78	260	1
10401	2,4,5-T	93-76-5	0.085	U 0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.44	0.078	0.18	1

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

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422539
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18BKG

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	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.038 J	0.035	0.17	1
01363	Chlordane	57-74-9	0.90 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.35	1
01363	p,p-DDE	72-55-9	0.10 J	0.069	0.35	1
01363	p,p-DDT	50-29-3	0.22 J	0.069	0.35	1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.35	1
01363	Endrin	72-20-8	0.069 U	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.069 U	0.069	0.35	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.9	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,900	6.24	20.6	1
07914	Boron	7440-42-8	15.5	0.371	5.16	1
01650	Calcium	7440-70-2	9,210	2.58	20.6	1
01654	Iron	7439-89-6	37,400	5.38	41.3	2
01656	Lithium	7439-93-2	31.6	0.64	2.1	1
01657	Magnesium	7439-95-4	8,840	0.454	10.3	1
06958	Manganese	7439-96-5	370	0.0371	0.516	1
10145	Phosphorus	7723-14-0	511	0.361	10.3	1
01662	Potassium	7440-09-7	4,980	11.7	51.6	1

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422539
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01667	Sodium	7440-23-5	100 J	6.14	103	1
07968	Strontium	7440-24-6	40.3	0.0258	0.516	1
06969	Tin	7440-31-5	2.95 J	0.330	10.3	1
06970	Titanium	7440-32-6	1,540	0.0732	1.03	1
10146	Zirconium	7440-67-7	4.78 J	0.474	5.16	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.392	0.0763	0.206	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.40	0.0825	0.413	2
06126	Barium	7440-39-3	182	0.109	0.413	2
06127	Beryllium	7440-41-7	1.16	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.304	0.0454	0.103	2
06131	Chromium	7440-47-3	40.0	0.124	0.413	2
06132	Cobalt	7440-48-4	13.9	0.0206	0.103	2
06133	Copper	7440-50-8	21.6	0.0825	0.413	2
06135	Lead	7439-92-1	12.4	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.548	0.0516	0.103	2
06139	Nickel	7440-02-0	27.8	0.103	0.413	2
06141	Selenium	7782-49-2	0.272 J	0.0598	0.413	2
06142	Silver	7440-22-4	0.0485 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.432	0.0309	0.103	2
06148	Vanadium	7440-62-2	79.0	0.0227	0.103	2
06149	Zinc	7440-66-6	102	0.578	3.09	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.4	0.82	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.61	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

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Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422539
LLI Group # 1268901
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Project Name: SSFL Area IV Collocated Soil Sampling

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E5718 SDG#: DE257-18BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%		
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/15/2011 16:42	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 15:45	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 03:25	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 23:39	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/20/2011 22:41	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/12/2011 04:30	Tara L Snyder	2
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 14:18	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 11:22	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422539
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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E5718 SDG#: DE257-18BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 11:22	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 11:22	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 11:22	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 08:03	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 03:35	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 00:59	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 18:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422540
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 11/03/2011 14:54

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E5718 SDG#: DE257-18MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,600	17	170	1
04688	Acenaphthylene	208-96-8	1,800	17	170	1
04688	Aniline	62-53-3	1,100	170	520	1
04688	Anthracene	120-12-7	1,700	17	170	1
04688	Benizidine	92-87-5	1,300	J 1,200	3,500	1
04688	Benzo(a)anthracene	56-55-3	1,600	17	170	1
04688	Benzo(a)pyrene	50-32-8	1,800	17	170	1
04688	Benzo(b)fluoranthene	205-99-2	2,000	17	170	1
04688	Benzo(g,h,i)perylene	191-24-2	1,700	17	170	1
04688	Benzo(k)fluoranthene	207-08-9	1,600	17	170	1
04688	Benzoic acid	65-85-0	460	J 170	520	1
04688	Benzyl alcohol	100-51-6	1,700	170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	1,700	17	170	1
04688	Butylbenzylphthalate	85-68-7	1,700	17	170	1
04688	Di-n-butylphthalate	84-74-2	1,700	17	170	1
04688	Carbazole	86-74-8	1,600	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	35	170	1
04688	4-Chloroaniline	106-47-8	930	69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,600	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,600	17	170	1
04688	2-Chloronaphthalene	91-58-7	1,200	17	170	1
04688	2-Chlorophenol	95-57-8	1,700	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,700	35	170	1
04688	Chrysene	218-01-9	1,400	17	170	1
04688	Dibenz(a,h)anthracene	53-70-3	1,800	17	170	1
04688	Dibenzofuran	132-64-9	1,600	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	1,500	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	810	100	350	1
04688	2,4-Dichlorophenol	120-83-2	1,700	17	170	1
04688	Diethylphthalate	84-66-2	1,700	17	170	1
04688	2,4-Dimethylphenol	105-67-9	1,700	35	170	1
04688	3,5-Dimethylphenol	108-68-9	1,900	35	170	1
04688	Dimethylphthalate	131-11-3	1,700	17	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	930	170	520	1
04688	2,4-Dinitrophenol	51-28-5	960	J 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	1,700	35	170	1
04688	2,6-Dinitrotoluene	606-20-2	1,800	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,700	17	350	1
04688	Fluoranthene	206-44-0	1,700	17	170	1
04688	Fluorene	86-73-7	1,700	17	170	1
04688	Hexachlorobenzene	118-74-1	1,700	17	170	1
04688	Hexachlorobutadiene	87-68-3	1,600	69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	2,400	170	520	1
04688	Hexachloroethane	67-72-1	1,500	17	170	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	17	170	1
04688	Isophorone	78-59-1	1,600	17	170	1

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422540
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,600	17	170	1
04688	2-Methylnaphthalene	91-57-6	1,700	17	170	1
04688	2-Methylphenol	95-48-7	1,700	35	170	1
04688	4-Methylphenol	106-44-5	1,700	35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	1,600	17	170	1
04688	2-Nitroaniline	88-74-4	1,800	17	170	1
04688	3-Nitroaniline	99-09-2	1,700	35	170	1
04688	4-Nitroaniline	100-01-6	1,300	69	170	1
04688	Nitrobenzene	98-95-3	1,600	17	170	1
04688	2-Nitrophenol	88-75-5	1,700	17	170	1
04688	4-Nitrophenol	100-02-7	1,400	170	520	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	35	170	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	1,700	17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	2,100	17	170	1
04688	Pentachlorophenol	87-86-5	1,400	170	520	1
04688	Phenanthrene	85-01-8	1,600	17	170	1
04688	Phenol	108-95-2	1,600	17	170	1
04688	Pyrene	129-00-0	1,600	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	29	0.68	1.7	1
10138	Acenaphthylene	208-96-8	28	0.34	1.7	1
10138	Anthracene	120-12-7	30	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	30	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	31	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	33	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	21	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	31	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	36	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	37	6.1	18	1
10138	Chrysene	218-01-9	30	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	24	0.68	1.7	1
10138	Diethylphthalate	84-66-2	33	6.1	18	1
10138	Dimethylphthalate	131-11-3	32	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	45	6.1	18	1
10138	Fluoranthene	206-44-0	32	0.68	1.7	1
10138	Fluorene	86-73-7	31	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	23	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	27	0.68	1.7	1

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422540
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MS

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	27	0.68	1.7	1
10138	Naphthalene	91-20-3	28	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	27	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	38	6.1	18	1
10138	Phenanthrene	85-01-8	30	0.68	1.7	1
10138	Pyrene	129-00-0	30	0.68	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	7.4		1.3	3.7	1
10401	Dalapon	75-99-0	10		4.6	9.4	1
10401	2,4-DB	94-82-6	11		0.65	1.8	1
10401	Dicamba	1918-00-9	0.74	J	0.42	1.3	1
10401	Dinoseb	88-85-7	2.0	J	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	7.9		0.83	1.8	1
10401	MCPA	94-74-6	450		79	260	1
10401	MCPP (Mecoprop)	93-65-2	670		78	260	1
10401	2,4,5-T	93-76-5	0.32		0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.60		0.078	0.18	1

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.28	0.069	0.18	1
01363	Alpha BHC	319-84-6	0.26	0.035	0.18	1
01363	Beta BHC	319-85-7	0.32	0.063	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.30	0.035	0.18	1
01363	Chlordane	57-74-9	4.3	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.75	0.069	0.35	1
01363	p,p-DDE	72-55-9	0.71	0.069	0.35	1
01363	p,p-DDT	50-29-3	0.88	0.069	0.35	1
01363	Delta BHC	319-86-8	0.32	0.038	0.18	1
01363	Dieldrin	60-57-1	0.39	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.24	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.47	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.60	0.069	0.35	1
01363	Endrin	72-20-8	0.55	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.57	0.069	0.35	1
01363	Endrin Ketone	53494-70-5	0.58	0.069	0.35	1
01363	Heptachlor	76-44-8	0.31	0.063	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.33	0.035	0.18	1
01363	Methoxychlor	72-43-5	2.1	0.35	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.9	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0	U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0	U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0	U	1.0	3.4	1

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422540
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MS

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-1016	12674-11-2	17	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	20	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	36,600	6.06	20.0	1
07914	Boron	7440-42-8	215	0.361	5.01	1
01650	Calcium	7440-70-2	9,330	2.50	20.0	1
01654	Iron	7439-89-6	37,100	5.23	40.1	2
01656	Lithium	7439-93-2	131	0.62	2.0	1
01657	Magnesium	7439-95-4	9,110	0.441	10.0	1
06958	Manganese	7439-96-5	412	0.0361	0.501	1
10145	Phosphorus	7723-14-0	605	0.351	10.0	1
01662	Potassium	7440-09-7	6,440	11.3	50.1	1
01667	Sodium	7440-23-5	1,080	5.96	100	1
07968	Strontium	7440-24-6	136	0.0250	0.501	1
06969	Tin	7440-31-5	341	0.321	10.0	1
06970	Titanium	7440-32-6	1,950	0.142	2.00	2
10146	Zirconium	7440-67-7	93.7	0.461	5.01	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	1.15	0.0771	0.208	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	10.4	0.0833	0.417	2
06126	Barium	7440-39-3	151	0.276	1.04	5
06127	Beryllium	7440-41-7	2.12	0.0167	0.104	2
06128	Cadmium	7440-43-9	1.66	0.0458	0.104	2
06131	Chromium	7440-47-3	51.5	0.125	0.417	2
06132	Cobalt	7440-48-4	78.9	0.0208	0.104	2
06133	Copper	7440-50-8	34.9	0.0833	0.417	2
06135	Lead	7439-92-1	16.4	0.0106	0.208	2
06138	Molybdenum	7439-98-7	14.3	0.0521	0.104	2
06139	Nickel	7440-02-0	42.4	0.104	0.417	2
06141	Selenium	7782-49-2	2.62	0.0604	0.417	2
06142	Silver	7440-22-4	13.4	0.0148	0.104	2
06145	Thallium	7440-28-0	0.971	0.0313	0.104	2
06148	Vanadium	7440-62-2	92.6	0.0229	0.104	2
06149	Zinc	7440-66-6	116	0.583	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.182	0.0073	0.104	1

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422540
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 300.0						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	10.0	0.83	1.0	1
EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	598	9.4	31.3	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	46.7	1.0	5.2	5
Wet Chemistry EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/15/2011 17:07	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 16:18	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 03:52	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/12/2011 23:54	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/21/2011 00:15	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/12/2011 04:42	Tara L Snyder	2
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422540
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/12/2011 04:42	Tara L Snyder	2
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 14:31	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 13:08	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 11:31	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 11:31	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 11:31	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 08:09	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 04:00	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 02:08	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 18:21	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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

Page 1 of 6

Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422541
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,600	17	170	1
04688	Acenaphthylene	208-96-8	1,800	17	170	1
04688	Aniline	62-53-3	1,100	170	520	1
04688	Anthracene	120-12-7	1,800	17	170	1
04688	Benizidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzo(a)anthracene	56-55-3	1,700	17	170	1
04688	Benzo(a)pyrene	50-32-8	1,800	17	170	1
04688	Benzo(b)fluoranthene	205-99-2	2,100	17	170	1
04688	Benzo(g,h,i)perylene	191-24-2	1,700	17	170	1
04688	Benzo(k)fluoranthene	207-08-9	1,700	17	170	1
04688	Benzoic acid	65-85-0	500	J 170	520	1
04688	Benzyl alcohol	100-51-6	1,700	170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	1,800	17	170	1
04688	Butylbenzylphthalate	85-68-7	1,700	17	170	1
04688	Di-n-butylphthalate	84-74-2	1,800	17	170	1
04688	Carbazole	86-74-8	1,700	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	35	170	1
04688	4-Chloroaniline	106-47-8	1,200	69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,700	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,600	17	170	1
04688	2-Chloronaphthalene	91-58-7	1,700	17	170	1
04688	2-Chlorophenol	95-57-8	1,700	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,700	35	170	1
04688	Chrysene	218-01-9	1,500	17	170	1
04688	Dibenz(a,h)anthracene	53-70-3	1,800	17	170	1
04688	Dibenzofuran	132-64-9	1,600	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	1,500	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,000	100	350	1
04688	2,4-Dichlorophenol	120-83-2	1,800	17	170	1
04688	Diethylphthalate	84-66-2	1,800	17	170	1
04688	2,4-Dimethylphenol	105-67-9	1,700	35	170	1
04688	3,5-Dimethylphenol	108-68-9	1,900	35	170	1
04688	Dimethylphthalate	131-11-3	1,700	17	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,000	170	520	1
04688	2,4-Dinitrophenol	51-28-5	1,100	350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	1,700	35	170	1
04688	2,6-Dinitrotoluene	606-20-2	1,800	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,800	17	350	1
04688	Fluoranthene	206-44-0	1,700	17	170	1
04688	Fluorene	86-73-7	1,800	17	170	1
04688	Hexachlorobenzene	118-74-1	1,800	17	170	1
04688	Hexachlorobutadiene	87-68-3	1,600	69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	2,500	170	520	1
04688	Hexachloroethane	67-72-1	1,500	17	170	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	17	170	1
04688	Isophorone	78-59-1	1,700	17	170	1

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422541
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,600	17	170	1
04688	2-Methylnaphthalene	91-57-6	1,700	17	170	1
04688	2-Methylphenol	95-48-7	1,700	35	170	1
04688	4-Methylphenol	106-44-5	1,700	35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,600	17	170	1
04688	2-Nitroaniline	88-74-4	1,800	17	170	1
04688	3-Nitroaniline	99-09-2	1,700	35	170	1
04688	4-Nitroaniline	100-01-6	1,400	69	170	1
04688	Nitrobenzene	98-95-3	1,600	17	170	1
04688	2-Nitrophenol	88-75-5	1,700	17	170	1
04688	4-Nitrophenol	100-02-7	1,400	170	520	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	35	170	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	1,800	17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	2,100	17	170	1
04688	Pentachlorophenol	87-86-5	1,500	170	520	1
04688	Phenanthrene	85-01-8	1,700	17	170	1
04688	Phenol	108-95-2	1,700	17	170	1
04688	Pyrene	129-00-0	1,700	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	29	0.68	1.7	1
10138	Acenaphthylene	208-96-8	28	0.34	1.7	1
10138	Anthracene	120-12-7	30	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	29	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	30	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	32	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	20	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	31	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	35	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	35	6.1	18	1
10138	Chrysene	218-01-9	29	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	23	0.68	1.7	1
10138	Diethylphthalate	84-66-2	33	6.1	18	1
10138	Dimethylphthalate	131-11-3	32	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	41	6.1	18	1
10138	Fluoranthene	206-44-0	31	0.68	1.7	1
10138	Fluorene	86-73-7	30	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	23	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	27	0.68	1.7	1

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422541
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	27	0.68	1.7	1
10138	Naphthalene	91-20-3	28	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	25	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	35	6.1	18	1
10138	Phenanthrene	85-01-8	29	0.68	1.7	1
10138	Pyrene	129-00-0	29	0.68	1.7	1
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.5	J 1.3	3.7	1
10401	Dalapon	75-99-0	5.2	J 4.6	9.3	1
10401	2,4-DB	94-82-6	17	0.65	1.8	1
10401	Dicamba	1918-00-9	0.79	J 0.42	1.3	1
10401	Dinoseb	88-85-7	1.5	J 0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	6.9	0.83	1.8	1
10401	MCPA	94-74-6	240	J 79	260	1
10401	MCPP (Mecoprop)	93-65-2	680	78	260	1
10401	2,4,5-T	93-76-5	0.22	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.51	0.078	0.18	1
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.27	0.069	0.18	1
01363	Alpha BHC	319-84-6	0.24	0.035	0.18	1
01363	Beta BHC	319-85-7	0.31	0.063	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.28	0.035	0.18	1
01363	Chlordane	57-74-9	3.1	J 0.83	3.5	1
01363	p,p-DDD	72-54-8	0.69	0.069	0.35	1
01363	p,p-DDE	72-55-9	0.68	0.069	0.35	1
01363	p,p-DDT	50-29-3	0.88	0.069	0.35	1
01363	Delta BHC	319-86-8	0.32	0.038	0.18	1
01363	Dieldrin	60-57-1	0.35	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.23	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.45	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.55	0.069	0.35	1
01363	Endrin	72-20-8	0.52	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.50	0.069	0.35	1
01363	Endrin Ketone	53494-70-5	0.57	0.069	0.35	1
01363	Heptachlor	76-44-8	0.34	0.063	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.33	0.035	0.18	1
01363	Methoxychlor	72-43-5	2.1	0.35	1.7	1
01363	Mirex	2385-85-5	0.069	U 0.069	0.35	1
01363	Toxaphene	8001-35-2	2.3	U 2.3	6.9	1
The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0	U 1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0	U 1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0	U 1.0	3.4	1

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422541
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MSD

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-1016	12674-11-2	19	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	22	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The surrogate recovery was outside the client specified QC limits. However, the recovery is within our in house statistical limits of 53-142% for DCB. The data is reported

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	37,400	6.18	20.4	1
07914	Boron	7440-42-8	219	0.368	5.11	1
01650	Calcium	7440-70-2	9,590	2.55	20.4	1
01654	Iron	7439-89-6	39,300	5.33	40.8	2
01656	Lithium	7439-93-2	135	0.63	2.0	1
01657	Magnesium	7439-95-4	9,220	0.449	10.2	1
06958	Manganese	7439-96-5	421	0.0368	0.511	1
10145	Phosphorus	7723-14-0	631	0.357	10.2	1
01662	Potassium	7440-09-7	6,620	11.5	51.1	1
01667	Sodium	7440-23-5	1,090	6.08	102	1
07968	Strontium	7440-24-6	139	0.0255	0.511	1
06969	Tin	7440-31-5	350	0.327	10.2	1
06970	Titanium	7440-32-6	2,060	0.145	2.04	2
10146	Zirconium	7440-67-7	96.8	0.470	5.11	1

		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	1.15	0.0763	0.206	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.91	0.0825	0.413	2
06126	Barium	7440-39-3	150	0.273	1.03	5
06127	Beryllium	7440-41-7	2.07	0.0165	0.103	2
06128	Cadmium	7440-43-9	1.67	0.0454	0.103	2
06131	Chromium	7440-47-3	54.3	0.124	0.413	2
06132	Cobalt	7440-48-4	80.6	0.0206	0.103	2
06133	Copper	7440-50-8	34.8	0.0825	0.413	2
06135	Lead	7439-92-1	16.8	0.0105	0.206	2
06138	Molybdenum	7439-98-7	14.1	0.0516	0.103	2
06139	Nickel	7440-02-0	44.1	0.103	0.413	2
06141	Selenium	7782-49-2	2.68	0.0598	0.413	2
06142	Silver	7440-22-4	13.3	0.0146	0.103	2
06145	Thallium	7440-28-0	0.938	0.0309	0.103	2
06148	Vanadium	7440-62-2	97.9	0.0227	0.103	2
06149	Zinc	7440-66-6	114	0.578	3.09	2

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422541
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MSD

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	
			0.174	0.0069	0.0986	1
Wet Chemistry						
11625	Moisture Content by 160.3	EPA 160.3 modified	%	%	%	
		n.a.	4.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11283SLA026	10/15/2011 17:32	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/12/2011 16:50	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 04:19	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/13/2011 00:09	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/21/2011 00:33	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/12/2011 04:47	Tara L Snyder	2
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/12/2011 04:47	Tara L Snyder	2
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 14:35	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:35	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:35	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:46	Choon Y Tian	5

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422541
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011	11:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011	11:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011	11:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011	08:11	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011	22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011	22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011	02:00	Annamaria Stipkovits	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011	21:20	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422542
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18DUP

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	6.24	20.6	1
07914	Boron	7440-42-8	15.6	0.371	5.16	1
01650	Calcium	7440-70-2	8,670	2.58	20.6	1
01654	Iron	7439-89-6	36,400	5.38	41.3	2
01656	Lithium	7439-93-2	31.2	0.64	2.1	1
01657	Magnesium	7439-95-4	8,740	0.454	10.3	1
06958	Manganese	7439-96-5	370	0.0371	0.516	1
10145	Phosphorus	7723-14-0	522	0.361	10.3	1
01662	Potassium	7440-09-7	5,010	11.7	51.6	1
01667	Sodium	7440-23-5	99.5 J	6.14	103	1
07968	Strontium	7440-24-6	39.2	0.0258	0.516	1
06969	Tin	7440-31-5	2.73 J	0.330	10.3	1
06970	Titanium	7440-32-6	1,530	0.0732	1.03	1
10146	Zirconium	7440-67-7	5.70	0.474	5.16	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.353	0.0763	0.206	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.65	0.0825	0.413	2
06126	Barium	7440-39-3	186	0.109	0.413	2
06127	Beryllium	7440-41-7	1.10	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.309	0.0454	0.103	2
06131	Chromium	7440-47-3	40.9	0.124	0.413	2
06132	Cobalt	7440-48-4	13.9	0.0206	0.103	2
06133	Copper	7440-50-8	21.6	0.0825	0.413	2
06135	Lead	7439-92-1	12.3	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.619	0.0516	0.103	2
06139	Nickel	7440-02-0	28.9	0.103	0.413	2
06141	Selenium	7782-49-2	0.258 J	0.0598	0.413	2
06142	Silver	7440-22-4	0.0372 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.454	0.0309	0.103	2
06148	Vanadium	7440-62-2	81.9	0.0227	0.103	2
06149	Zinc	7440-66-6	102	0.578	3.09	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.82	1.0	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	1.1	0.20	1.0	1

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422542
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.61	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	3.9	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/12/2011 04:38	Tara L Snyder	2
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 14:26	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 11:28	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 11:28	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 11:28	Choon Y Tian	2

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422542
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 11:28	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 08:06	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 03:48	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 01:22	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11283243202A	10/12/2011 19:21	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422543
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.8	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.4	1
10401	2,4-DB	94-82-6	1.6 U	1.6	1.8	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.3	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	85 U	85	260	1
10401	MCPP (Mecoprop)	93-65-2	110 U	110	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.11 U	0.11	0.18	1

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. Various compounds were affected.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.13 J	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.11 J	0.035	0.17	1
01363	Beta BHC	319-85-7	0.095 J	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.15 J	0.035	0.17	1
01363	Chlordane	57-74-9	1.7 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.41	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.43	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.60	0.068	0.35	1
01363	Delta BHC	319-86-8	0.16 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.31 J	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.12 J	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.29 J	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.36	0.068	0.35	1
01363	Endrin	72-20-8	0.33 J	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.29 J	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.34 J	0.068	0.35	1
01363	Heptachlor	76-44-8	0.16 J	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.18	0.035	0.17	1
01363	Methoxychlor	72-43-5	2.1	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.8	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422543
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18RLR

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-1248	12672-29-6	3.1	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	3.2	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.

Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 04:47	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/13/2011 01:53	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/21/2011 00:52	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422544
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	4.8	1.2	3.6	1
10401	Dalapon	75-99-0	5.7 J	4.4	9.0	1
10401	2,4-DB	94-82-6	1.8 U	1.8	1.8	1
10401	Dicamba	1918-00-9	0.40 U	0.40	1.2	1
10401	Dinoseb	88-85-7	0.80 U	0.80	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	1.5 J	0.80	1.7	1
10401	MCPA	94-74-6	100 J	76	250	1
10401	MCPP (Mecoprop)	93-65-2	96 J	75	250	1
10401	2,4,5-T	93-76-5	0.13 J	0.082	0.17	1
10401	2,4,5-TP	93-72-1	0.10 J	0.075	0.17	1

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	0.14 J	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.12 J	0.034	0.17	1
01363	Beta BHC	319-85-7	0.19	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.14 J	0.034	0.17	1
01363	Chlordane	57-74-9	0.80 U	0.80	3.4	1
01363	p,p-DDD	72-54-8	0.29 J	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.28 J	0.066	0.34	1
01363	p,p-DDT	50-29-3	0.32 J	0.066	0.34	1
01363	Delta BHC	319-86-8	0.16 J	0.036	0.17	1
01363	Dieldrin	60-57-1	0.15 J	0.066	0.34	1
01363	Endosulfan I	959-98-8	0.080 J	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.20 J	0.066	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.17 J	0.066	0.34	1
01363	Endrin	72-20-8	0.25 J	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.29 J	0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.26 J	0.066	0.34	1
01363	Heptachlor	76-44-8	0.14 J	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.12 J	0.034	0.17	1
01363	Methoxychlor	72-43-5	0.82 J	0.34	1.7	1
01363	Mirex	2385-85-5	0.066 U	0.066	0.34	1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.6	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	2.3	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1

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

Sample Description: SL-034-SA5DS-SS-0.0-0.5RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422544
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5718 SDG#: DE257-18RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1
10225	PCB-1260	11096-82-5	2.6	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 05:14	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/13/2011 02:08	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/21/2011 01:11	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1

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



Analysis Report

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Page 1 of 6

Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422545
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5719 SDG#: DE257-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	500	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	500	1
04688	Benzyl alcohol	100-51-6	170	U 170	500	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	67	U 67	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	500	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	67	U 67	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	500	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	67	U 67	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	500	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	500	1
04688	Phenol	108-95-2	17	U 17	170	1

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

Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422545
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5719 SDG#: DE257-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.66 U	0.66	1.7	1
10138	Acenaphthylene	208-96-8	0.33 U	0.33	1.7	1
10138	Anthracene	120-12-7	0.33 U	0.33	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.77 J	0.66	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.2 J	0.66	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	6.7	0.66	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.66 U	0.66	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.66 U	0.66	1.7	1
10138	Butylbenzylphthalate	85-68-7	8.8 J	6.0	18	1
10138	Di-n-butylphthalate	84-74-2	6.0 U	6.0	18	1
10138	Chrysene	218-01-9	1.9	0.33	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.66 U	0.66	1.7	1
10138	Diethylphthalate	84-66-2	6.0 U	6.0	18	1
10138	Dimethylphthalate	131-11-3	6.0 U	6.0	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13 J	6.0	18	1
10138	Fluoranthene	206-44-0	2.3	0.66	1.7	1
10138	Fluorene	86-73-7	0.66 U	0.66	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.66 U	0.66	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.66 U	0.66	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.66 U	0.66	1.7	1
10138	Naphthalene	91-20-3	1.4 J	0.66	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.66 U	0.66	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.0 U	6.0	18	1
10138	Phenanthrene	85-01-8	1.5 J	0.66	1.7	1
10138	Pyrene	129-00-0	2.2	0.66	1.7	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	1.2 U	1.2	3.6
10401	Dalapon	75-99-0	4.4 U	4.4	9.1
10401	2,4-DB	94-82-6	2.6 U	2.6	2.6
10401	Dicamba	1918-00-9	0.40 U	0.40	1.2
10401	Dinoseb	88-85-7	0.81 U	0.81	2.4
10401	2,4-DP (Dichlorprop)	120-36-5	0.81 U	0.81	1.7
10401	MCPA	94-74-6	77 U	77	250
10401	MCPP (Mecoprop)	93-65-2	76 U	76	250
10401	2,4,5-T	93-76-5	0.083 U	0.083	0.17
10401	2,4,5-TP	93-72-1	0.62	0.076	0.17

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



Analysis Report

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Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422545
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5719 SDG#: DE257-19

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 J	2.1	5.1	1
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.034 U	0.034	0.17	1
01363	Beta BHC	319-85-7	0.081 J	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.053 J	0.034	0.17	1
01363	Chlordane	57-74-9	0.81 U	0.81	3.4	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.34	1
01363	p,p-DDE	72-55-9	0.11 U	0.11	0.34	1
01363	p,p-DDT	50-29-3	0.23 U	0.23	0.34	1
01363	Delta BHC	319-86-8	0.036 U	0.036	0.17	1
01363	Dieldrin	60-57-1	0.067 U	0.067	0.34	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.067 U	0.067	0.34	1
01363	Endrin	72-20-8	0.067 U	0.067	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.067 U	0.067	0.34	1
01363	Endrin Ketone	53494-70-5	0.067 U	0.067	0.34	1
01363	Heptachlor	76-44-8	0.061 U	0.061	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.034 U	0.034	0.17	1
01363	Methoxychlor	72-43-5	0.34 U	0.34	1.7	1
01363	Mirex	2385-85-5	0.067 U	0.067	0.34	1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.7	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	2.9 J	1.0	3.3	1
10225	PCB-1016	12674-11-2	0.33 U	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.85 J	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.5 J	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,000	6.07	20.1	1
07914	Boron	7440-42-8	8.35	0.361	5.02	1
01650	Calcium	7440-70-2	3,090	2.51	20.1	1
01654	Iron	7439-89-6	22,500	2.62	20.1	1
01656	Lithium	7439-93-2	17.7	0.62	2.0	1

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

Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422545
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5719 SDG#: DE257-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	4,710	0.441	10.0	1
06958	Manganese	7439-96-5	369	0.0361	0.502	1
10145	Phosphorus	7723-14-0	360	0.351	10.0	1
01662	Potassium	7440-09-7	4,120	11.3	50.2	1
01667	Sodium	7440-23-5	83.6 J	5.97	100	1
07968	Strontium	7440-24-6	25.8	0.0251	0.502	1
06969	Tin	7440-31-5	2.42 J	0.321	10.0	1
06970	Titanium	7440-32-6	1,270	0.0712	1.00	1
10146	Zirconium	7440-67-7	3.49 J	0.461	5.02	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.258	0.0750	0.203	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.98	0.0811	0.405	2
06126	Barium	7440-39-3	117	0.107	0.405	2
06127	Beryllium	7440-41-7	0.757	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.217	0.0446	0.101	2
06131	Chromium	7440-47-3	33.2	0.122	0.405	2
06132	Cobalt	7440-48-4	9.83	0.0203	0.101	2
06133	Copper	7440-50-8	10.9	0.0811	0.405	2
06135	Lead	7439-92-1	14.1	0.0103	0.203	2
06138	Molybdenum	7439-98-7	0.762	0.0507	0.101	2
06139	Nickel	7440-02-0	17.7	0.101	0.405	2
06141	Selenium	7782-49-2	0.188 J	0.0588	0.405	2
06142	Silver	7440-22-4	0.0289 J	0.0144	0.101	2
06145	Thallium	7440-28-0	0.273	0.0304	0.101	2
06148	Vanadium	7440-62-2	62.3	0.0223	0.101	2
06149	Zinc	7440-66-6	61.2	0.567	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0070 U	0.0070	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.81	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.1 U	9.1	30.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.20 U	0.20	0.99	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.27	0.0100	0.0100	1

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



Analysis Report

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Page 5 of 6

Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422545
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5719 SDG#: DE257-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	1.3	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	11283SLA026	10/15/2011 17:57	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/13/2011 01:27	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 05:41	John W Perkins	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	112770016A	10/05/2011 20:06	Richard A Shober	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/13/2011 02:23	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/21/2011 01:30	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	112770016A	10/05/2011 09:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1

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

Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422545
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5719 SDG#: DE257-19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 16:01	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 12:40	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:40	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:40	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:40	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 08:12	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 05:37	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 04:27	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 19:28	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422546
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5720 SDG#: DE257-20FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	48	J 17	350	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1

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



Analysis Report

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Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422546
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5720 SDG#: DE257-20FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	17 U	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68 U	0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 U	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68 U	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.7 J	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68 U	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.68 U	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68 U	0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Fluoranthene	206-44-0	0.68 U	0.68	1.7	1
10138	Fluorene	86-73-7	0.68 U	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68 U	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68 U	0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68 U	0.68	1.7	1
10138	Naphthalene	91-20-3	0.68 U	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68 U	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	0.68 U	0.68	1.7	1
10138	Pyrene	129-00-0	0.68 U	0.68	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.3	1
10401	2,4-DB	94-82-6	2.6 U	2.6	2.6	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.2	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichloroprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	79 U	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.23 U	0.23	0.23	1

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: 2,4,5-TP, and 2,4-DB.

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

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

Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422546
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5720 SDG#: DE257-20FD

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	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.13 J	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	1.9 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.068 U	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.36	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.46	0.068	0.35	1
01363	Delta BHC	319-86-8	0.040 U	0.040	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.13 J	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	4.9 U	4.9	6.8	1

The DCB surrogate recovery is above the client specified client limits of 20-120% for the method blank and Laboratory Control Sample; however the recovery is within the in house statistical limits of 45-150%.

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

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.62 J	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	30,100	6.23	20.6	1
07914	Boron	7440-42-8	14.9	0.371	5.15	1
01650	Calcium	7440-70-2	8,920	2.57	20.6	1
01654	Iron	7439-89-6	35,800	5.37	41.2	2
01656	Lithium	7439-93-2	30.4	0.64	2.1	1
01657	Magnesium	7439-95-4	8,650	0.453	10.3	1
06958	Manganese	7439-96-5	353	0.0371	0.515	1
10145	Phosphorus	7723-14-0	533	0.360	10.3	1

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



Analysis Report

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Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422546
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5720 SDG#: DE257-20FD

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	5,030	11.6	51.5	1
01667	Sodium	7440-23-5	99.2 J	6.12	103	1
07968	Strontium	7440-24-6	39.1	0.0257	0.515	1
06969	Tin	7440-31-5	2.82 J	0.329	10.3	1
06970	Titanium	7440-32-6	1,440	0.0731	1.03	1
10146	Zirconium	7440-67-7	4.15 J	0.473	5.15	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.330	0.0740	0.200	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.53	0.0800	0.400	2
06126	Barium	7440-39-3	134	0.265	1.00	5
06127	Beryllium	7440-41-7	1.08	0.0160	0.100	2
06128	Cadmium	7440-43-9	0.277	0.0440	0.100	2
06131	Chromium	7440-47-3	40.4	0.120	0.400	2
06132	Cobalt	7440-48-4	14.2	0.0200	0.100	2
06133	Copper	7440-50-8	21.8	0.0800	0.400	2
06135	Lead	7439-92-1	12.7	0.0102	0.200	2
06138	Molybdenum	7439-98-7	0.543	0.0500	0.100	2
06139	Nickel	7440-02-0	28.0	0.100	0.400	2
06141	Selenium	7782-49-2	0.267 J	0.0580	0.400	2
06142	Silver	7440-22-4	0.0420 J	0.0142	0.100	2
06145	Thallium	7440-28-0	0.448	0.0300	0.100	2
06148	Vanadium	7440-62-2	81.1	0.0220	0.100	2
06149	Zinc	7440-66-6	99.6	0.560	3.00	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.82	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.0	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.31	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	3.8	0.50	0.50	1

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



Analysis Report

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Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422546
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 11/03/2011 14:54

Chantilly VA 20151

E5720 SDG#: DE257-20FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor

Wet Chemistry

EPA 160.3 modified

%

%

%

"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	11283SLA026	10/15/2011 18:22	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11281SLA026	10/13/2011 01:59	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11281SLA026	10/10/2011 10:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11283SLA026	10/11/2011 10:15	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112790018A	10/09/2011 06:09	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112800017A	10/13/2011 02:37	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112800018A	10/21/2011 01:48	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112800017A	10/08/2011 11:00	Sally L Appleyard	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112800018A	10/08/2011 08:00	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112790018A	10/07/2011 03:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112725708002	10/12/2011 04:59	Tara L Snyder	2
01656	Lithium	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112725708002	10/11/2011 16:05	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112721026002D	09/30/2011 13:11	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2

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

Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422546
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5720 SDG#: DE257-20FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112721026002C	09/30/2011 12:43	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112721026002B	09/30/2011 12:43	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112721026002A	09/30/2011 12:43	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112725711003	09/30/2011 08:13	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112725708002	09/29/2011 22:17	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112721026002	09/29/2011 22:18	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112725711003	09/30/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285285201B	10/14/2011 05:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11278621201B	10/07/2011 04:50	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243202A	10/12/2011 19:42	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285285201B	10/12/2011 07:00	Nancy J Shoop	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11278621201B	10/05/2011 07:00	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039401B	10/12/2011 09:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 11:15	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11279162401A	10/06/2011 22:58	Scott W Freisher	1



Analysis Report

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Sample Description: EB-SA5DS-SS-092811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SS-092811

LLI Sample # WW 6422547
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5721 SDG#: DE257-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1 U	1	5	1
04678	Benzidine	92-87-5	20 U	20	59	1
04678	Benzoic acid	65-85-0	6 U	6	15	1
04678	Benzyl alcohol	100-51-6	5 U	5	15	1
04678	4-Bromophenyl-phenylether	101-55-3	1 U	1	5	1
04678	Carbazole	86-74-8	1 U	1	5	1
04678	4-Chloro-3-methylphenol	59-50-7	1 U	1	5	1
04678	4-Chloroaniline	106-47-8	1 U	1	5	1
04678	bis(2-Chloroethoxy)methane	111-91-1	1 U	1	5	1
04678	bis(2-Chloroethyl) ether	111-44-4	1 U	1	5	1
04678	bis(2-Chloroisopropyl) ether	39638-32-9	1 U	1	5	1
04678	2-Chloronaphthalene	91-58-7	2 U	2	5	1
04678	2-Chlorophenol	95-57-8	1 U	1	5	1
04678	4-Chlorophenyl-phenylether	7005-72-3	2 U	2	5	1
04678	Dibenzofuran	132-64-9	1 U	1	5	1
04678	1,2-Dichlorobenzene	95-50-1	1 U	1	5	1
04678	1,3-Dichlorobenzene	541-73-1	1 U	1	5	1
04678	1,4-Dichlorobenzene	106-46-7	1 U	1	5	1
04678	3,3'-Dichlorobenzidine	91-94-1	2 U	2	5	1
04678	2,4-Dichlorophenol	120-83-2	1 U	1	5	1
04678	2,4-Dimethylphenol	105-67-9	3 U	3	10	1
04678	3,5-Dimethylphenol	108-68-9	3 U	3	10	1
04678	4,6-Dinitro-2-methylphenol	534-52-1	5 U	5	15	1
04678	2,4-Dinitrophenol	51-28-5	10 U	10	30	1
04678	2,4-Dinitrotoluene	121-14-2	1 U	1	5	1
04678	2,6-Dinitrotoluene	606-20-2	1 U	1	5	1
04678	1,2-Diphenylhydrazine	122-66-7	1 U	1	5	1
04678	Hexachlorobenzene	118-74-1	1 U	1	5	1
04678	Hexachlorobutadiene	87-68-3	1 U	1	5	1
04678	Hexachlorocyclopentadiene	77-47-4	5 U	5	15	1
04678	Hexachloroethane	67-72-1	1 U	1	5	1
04678	Isophorone	78-59-1	1 U	1	5	1
04678	2-Methylphenol	95-48-7	1 U	1	5	1
04678	4-Methylphenol	106-44-5	2 U	2	5	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04678	2-Nitroaniline	88-74-4	1 U	1	5	1
04678	3-Nitroaniline	99-09-2	1 U	1	5	1
04678	4-Nitroaniline	100-01-6	1 U	1	5	1
04678	Nitrobenzene	98-95-3	1 U	1	5	1
04678	2-Nitrophenol	88-75-5	1 U	1	5	1
04678	4-Nitrophenol	100-02-7	10 U	10	30	1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	5	1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	5	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04678	Pentachlorophenol	87-86-5	3 U	3	15	1
04678	Phenol	108-95-2	1 U	1	5	1

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

Sample Description: EB-SA5DS-SS-092811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SS-092811

LLI Sample # WW 6422547
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5721 SDG#: DE257-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	
04678	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5	1
04678	2,4,5-Trichlorophenol	95-95-4	1 U	1	5	1
04678	2,4,6-Trichlorophenol	88-06-2	1 U	1	5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.011 U	0.011	0.053	1
10137	Acenaphthylene	208-96-8	0.011 U	0.011	0.053	1
10137	Anthracene	120-12-7	0.011 U	0.011	0.053	1
10137	Benzo(a)anthracene	56-55-3	0.011 U	0.011	0.053	1
10137	Benzo(a)pyrene	50-32-8	0.011 U	0.011	0.053	1
10137	Benzo(b)fluoranthene	205-99-2	0.011 U	0.011	0.053	1
10137	Benzo(g,h,i)perylene	191-24-2	0.011 U	0.011	0.053	1
10137	Benzo(k)fluoranthene	207-08-9	0.011 U	0.011	0.053	1
10137	Butylbenzylphthalate	85-68-7	0.053 U	0.053	1.1	1
10137	Di-n-butylphthalate	84-74-2	0.74 J	0.053	1.1	1
10137	Chrysene	218-01-9	0.011 U	0.011	0.053	1
10137	Dibenz(a,h)anthracene	53-70-3	0.011 U	0.011	0.053	1
10137	Diethylphthalate	84-66-2	0.36 J	0.053	1.1	1
10137	Dimethylphthalate	131-11-3	0.053 U	0.053	1.1	1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.11 J	0.053	1.1	1
10137	Fluoranthene	206-44-0	0.011 U	0.011	0.053	1
10137	Fluorene	86-73-7	0.011 U	0.011	0.053	1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.011 U	0.011	0.053	1
10137	1-Methylnaphthalene	90-12-0	0.011 U	0.011	0.053	1
10137	2-Methylnaphthalene	91-57-6	0.011 U	0.011	0.053	1
10137	Naphthalene	91-20-3	0.057 U	0.032	0.053	1
10137	N-Nitrosodimethylamine	62-75-9	0.011 U	0.011	0.053	1
10137	Di-n-octylphthalate	117-84-0	0.12 J	0.053	1.1	1
10137	Phenanthrene	85-01-8	0.032 U	0.032	0.053	1
10137	Pyrene	129-00-0	0.011 U	0.011	0.053	1
Reporting limits were raised due to limited sample volume.						
Herbicides	SW-846 8151A		ug/l	ug/l	ug/l	
10407	2,4-D	94-75-7	0.16 U	0.16	0.49	1
10407	Dalapon	75-99-0	0.25 U	0.25	1.2	1
10407	2,4-DB	94-82-6	0.30 U	0.30	0.99	1
10407	Dicamba	1918-00-9	0.079 U	0.079	0.30	1
10407	Dinoseb	88-85-7	0.099 U	0.099	0.49	1
10407	2,4-DP (Dichlorprop)	120-36-5	0.16 U	0.16	0.49	1
10407	MCPA	94-74-6	300 U	300	990	1
10407	MCPP	93-65-2	49 U	49	200	1
10407	2,4,5-T	93-76-5	0.015 U	0.015	0.049	1
10407	2,4,5-TP	93-72-1	0.0099 U	0.0099	0.049	1
Pesticides/PCBs	SW-846 8081A		ug/l	ug/l	ug/l	
00177	Aldrin	309-00-2	0.0019 U	0.0019	0.0097	1
00177	Alpha BHC	319-84-6	0.0029 U	0.0029	0.0097	1
00177	Beta BHC	319-85-7	0.0028 U	0.0028	0.0097	1
00177	Gamma BHC - Lindane	58-89-9	0.0019 U	0.0019	0.0097	1

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



Analysis Report

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Sample Description: EB-SA5DS-SS-092811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SS-092811

LLI Sample # WW 6422547
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5721 SDG#: DE257-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8081A		ug/l	ug/l	ug/l	
00177	Chlordane	57-74-9	0.12 U	0.12	0.49	1
00177	p,p-DDD	72-54-8	0.0049 U	0.0049	0.019	1
00177	p,p-DDE	72-55-9	0.0049 U	0.0049	0.019	1
00177	p,p-DDT	50-29-3	0.0049 U	0.0049	0.019	1
00177	Delta BHC	319-86-8	0.0028 U	0.0028	0.0097	1
00177	Dieldrin	60-57-1	0.0052 U	0.0052	0.019	1
00177	Endosulfan I	959-98-8	0.0042 U	0.0042	0.0097	1
00177	Endosulfan II	33213-65-9	0.015 U	0.015	0.019	1
00177	Endosulfan Sulfate	1031-07-8	0.0056 U	0.0056	0.019	1
00177	Endrin	72-20-8	0.0079 U	0.0079	0.019	1
00177	Endrin Aldehyde	7421-93-4	0.019 U	0.019	0.097	1
00177	Endrin Ketone	53494-70-5	0.0049 U	0.0049	0.019	1
00177	Heptachlor	76-44-8	0.0025 U	0.0025	0.0097	1
00177	Heptachlor Epoxide	1024-57-3	0.0022 U	0.0022	0.0097	1
00177	Methoxychlor	72-43-5	0.029 U	0.029	0.097	1
00177	Mirex	2385-85-5	0.082 U	0.082	0.24	1
00177	Toxaphene	8001-35-2	0.97 U	0.97	2.9	1
Pesticides/PCBs						
	SW-846 8082		ug/l	ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.097 U	0.097	0.49	1
10227	Aroclor 5442	12642-23-8	0.097 U	0.097	0.49	1
10227	Aroclor 5460	11126-42-4	0.097 U	0.097	0.49	1
10227	PCB-1016	12674-11-2	0.097 U	0.097	0.49	1
10227	PCB-1221	11104-28-2	0.097 U	0.097	0.49	1
10227	PCB-1232	11141-16-5	0.19 U	0.19	0.49	1
10227	PCB-1242	53469-21-9	0.097 U	0.097	0.49	1
10227	PCB-1248	12672-29-6	0.097 U	0.097	0.49	1
10227	PCB-1254	11097-69-1	0.097 U	0.097	0.49	1
10227	PCB-1260	11096-82-5	0.15 U	0.15	0.49	1
10227	PCB-1262	37324-23-5	0.19 U	0.19	0.49	1
10227	PCB-1268	11100-14-4	0.16 U	0.16	0.49	1
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801 U	0.0801	0.200	1
08014	Boron	7440-42-8	0.0025 J	0.0022	0.0500	1
01750	Calcium	7440-70-2	0.0705 U	0.0705	0.200	1
01754	Iron	7439-89-6	0.0141 U	0.0141	0.200	1
01756	Lithium	7439-93-2	0.0076 U	0.0076	0.0200	1
01757	Magnesium	7439-95-4	0.0067 U	0.0067	0.100	1
07058	Manganese	7439-96-5	0.00044 U	0.00044	0.0050	1
10143	Phosphorus	7723-14-0	0.0105 J	0.0047	0.100	1
01762	Potassium	7440-09-7	0.0874 U	0.0874	0.500	1
01767	Sodium	7440-23-5	0.0647 U	0.0647	1.00	1
08068	Strontium	7440-24-6	0.00022 U	0.00022	0.0050	1
07069	Tin	7440-31-5	0.0043 U	0.0043	0.0200	1
07070	Titanium	7440-32-6	0.00046 U	0.00046	0.0100	1
10144	Zirconium	7440-67-7	0.0042 U	0.0042	0.0500	1
	SW-846 6020		mg/l	mg/l	mg/l	

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



Analysis Report

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Page 4 of 6

Sample Description: EB-SA5DS-SS-092811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SS-092811

LLI Sample # WW 6422547
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5721 SDG#: DE257-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6020	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042 U	0.00042	0.0010	1
06025	Arsenic	7440-38-2	0.00095 U	0.00095	0.0020	1
06026	Barium	7440-39-3	0.00069 U	0.00069	0.0020	1
06027	Beryllium	7440-41-7	0.00013 U	0.00013	0.00050	1
06028	Cadmium	7440-43-9	0.00022 J	0.00020	0.00050	1
06031	Chromium	7440-47-3	0.00060 U	0.00060	0.0020	1
06032	Cobalt	7440-48-4	0.00010 U	0.00010	0.00050	1
06033	Copper	7440-50-8	0.00038 U	0.00038	0.0020	1
06035	Lead	7439-92-1	0.0026	0.000080	0.0010	1
06038	Molybdenum	7439-98-7	0.00025 U	0.00025	0.00050	1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020	1
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020	1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050	1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050	1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050	1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000045 J	0.000026	0.00020	1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10	1
		EPA 314.0	ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0	1
		SW-846 7199	ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0	1
		SW-846 9040B	Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.3	0.010	0.010	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
04678	5b Semivolatiles by EPA 8270C	SW-846 8270C	1	11276WAC026	10/05/2011 15:38	Linda M Hartenstine	1

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

Sample Description: EB-SA5DS-SS-092811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SS-092811

LLI Sample # WW 6422547
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5721 SDG#: DE257-21EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11274WAB026	10/11/2011 22:34	Gregory J Drahovsky	1
00813	BNA Water Extraction	SW-846 3510C	1	11276WAC026	10/04/2011 09:40	Denise L Trimby	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11274WAB026	10/02/2011 20:00	Elaine F Stoltzfus	1
10407	13b Herbicides by EPA 8151	SW-846 8151A	1	112720023A	10/02/2011 00:59	Michele D Hamilton	1
00177	12b Pesticides by 8081A	SW-846 8081A	1	112740024A	10/05/2011 21:23	Lisa A Reinert	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	112740023A	10/04/2011 20:50	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	112740023A	10/04/2011 02:30	Sherry L Morrow	1
11118	Pesticide Screen Waters Ext	SW-846 3510C	1	112740024A	10/04/2011 02:30	Sherry L Morrow	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	112720023A	09/30/2011 02:45	Roman Kuropatkin	1
01743	Aluminum	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
08014	Boron	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
01754	Iron	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
01756	Lithium	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
10143	Phosphorus	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
01762	Potassium	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
01767	Sodium	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
08068	Strontium	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
07069	Tin	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
07070	Titanium	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
10144	Zirconium	SW-846 6010B	1	112781848003	10/09/2011 23:55	Tara L Snyder	1
06024	Antimony	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06026	Barium	SW-846 6020	1	112786050001D	10/06/2011 08:14	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06033	Copper	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06035	Lead	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	112786050001C	10/06/2011 08:14	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	112786050001B	10/06/2011 08:14	Choon Y Tian	1
06042	Silver	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	112786050001A	10/06/2011 08:14	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	112785713001	10/06/2011 09:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	112781848003	10/05/2011 12:07	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	112786050001	10/05/2011 12:13	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	112785713001	10/05/2011 14:54	Nelli S Markaryan	1

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



Analysis Report

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Page 6 of 6

Sample Description: EB-SA5DS-SS-092811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SS-092811

LLI Sample # WW 6422547
LLI Group # 1268901
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 11/03/2011 14:54

Suite 210

Chantilly VA 20151

E5721 SDG#: DE257-21EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11279196902C	10/06/2011 23:24	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	11272281101A	09/29/2011 11:53	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11272281401A	09/29/2011 12:05	Elyse P Brunstetter	1
00200	17b pH by 9040B	SW-846 9040B	1	11273020001A	09/30/2011 17:00	Luz M Groff	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: B112771AA Sample number(s): 6422525									
Acetone	6.7 U	6.7	8.0	ug/kg	114	115	32-209	1	30
Benzene	0.10 U	0.10	4.0	ug/kg	94	106	80-120	12	30
Bromobenzene	0.13 U	0.13	4.0	ug/kg	93	103	79-120	10	30
Bromochloromethane	0.33 U	0.33	4.0	ug/kg	94	101	79-124	7	30
Bromodichloromethane	0.08 U	0.08	4.0	ug/kg	90	99	78-120	9	30
Bromoform	0.40 U	0.40	4.0	ug/kg	97	103	70-120	6	30
Bromomethane	0.25 U	0.25	4.0	ug/kg	72	83	32-162	14	30
2-Butanone	1.2 U	1.2	8.0	ug/kg	111	110	46-153	1	30
n-Butylbenzene	0.12 U	0.12	4.0	ug/kg	97	113	72-120	16	30
sec-Butylbenzene	0.06 U	0.06	4.0	ug/kg	95	110	75-120	14	30
tert-Butylbenzene	0.16 U	0.16	4.0	ug/kg	91	106	75-120	15	30
Carbon Tetrachloride	0.14 U	0.14	4.0	ug/kg	88	101	69-122	13	30
Chlorobenzene	0.11 U	0.11	4.0	ug/kg	96	107	80-120	11	30
Chloroethane	0.13 U	0.13	4.0	ug/kg	66	79	37-154	18	30
2-Chloroethyl Vinyl Ether	0.30 U	0.30	4.0	ug/kg	93	100	43-146	8	30
Chloroform	0.20 J	0.12	4.0	ug/kg	93	103	80-120	11	30
Chloromethane	0.33 U	0.33	4.0	ug/kg	78	93	54-132	17	30
2-Chlorotoluene	0.14 U	0.14	4.0	ug/kg	94	104	78-120	10	30
4-Chlorotoluene	0.14 U	0.14	4.0	ug/kg	95	108	79-120	13	30
Chlorotrifluoroethene	0.50 U	0.50	5.0	ug/kg	68	65	22-131	4	30
1,2-Dibromo-3-chloropropane	0.70 U	0.70	4.0	ug/kg	104	105	58-120	1	30
Dibromochloromethane	0.20 U	0.20	4.0	ug/kg	98	104	77-120	6	30
1,2-Dibromoethane	0.17 U	0.17	4.0	ug/kg	100	108	80-120	7	30
Dibromomethane	0.24 U	0.24	4.0	ug/kg	97	102	80-120	5	30
1,2-Dichlorobenzene	0.09 U	0.09	4.0	ug/kg	98	107	79-120	9	30
1,3-Dichlorobenzene	0.12 U	0.12	4.0	ug/kg	92	103	78-120	11	30
1,4-Dichlorobenzene	0.16 U	0.16	4.0	ug/kg	93	104	79-120	11	30
Dichlorodifluoromethane	0.12 U	0.12	4.0	ug/kg	80	94	20-120	16	30
1,1-Dichloroethane	0.10 U	0.10	4.0	ug/kg	94	106	80-120	12	30
1,2-Dichloroethane	0.15 U	0.15	4.0	ug/kg	97	103	71-129	7	30
1,1-Dichloroethene	0.39 U	0.39	4.0	ug/kg	101	119	73-123	16	30
cis-1,2-Dichloroethene	0.19 U	0.19	4.0	ug/kg	93	104	80-120	11	30
trans-1,2-Dichloroethene	0.12 U	0.12	4.0	ug/kg	94	111	79-120	17	30
1,2-Dichloropropane	0.17 U	0.17	4.0	ug/kg	93	104	80-120	11	30
1,3-Dichloropropane	0.08 U	0.08	4.0	ug/kg	101	110	80-120	8	30
2,2-Dichloropropane	0.17 U	0.17	4.0	ug/kg	86	99	72-123	14	30
1,1-Dichloropropene	0.13 U	0.13	4.0	ug/kg	92	106	77-120	14	30
cis-1,3-Dichloropropene	0.16 U	0.16	4.0	ug/kg	89	98	80-120	9	30
trans-1,3-Dichloropropene	0.17 U	0.17	4.0	ug/kg	93	102	77-120	10	30
Ethylbenzene	0.06 U	0.06	4.0	ug/kg	96	109	80-120	13	30
Freon 113	0.11 U	0.11	4.0	ug/kg	109	127*	61-126	15	30
Freon 133a	0.50 U	0.50	5.0	ug/kg	114	109	78-120	4	30
Hexachlorobutadiene	0.14 U	0.14	4.0	ug/kg	88	107	57-120	19	30
2-Hexanone	1.6 U	1.6	8.0	ug/kg	115	114	45-155	1	30
Isopropylbenzene	0.06 U	0.06	4.0	ug/kg	96	109	76-120	13	30

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
p-Isopropyltoluene	0.11 U	0.11	4.0	ug/kg	95	110	75-120	15	30
Methyl Tertiary Butyl Ether	0.21 U	0.21	4.0	ug/kg	99	106	74-121	7	30
4-Methyl-2-pentanone	0.39 U	0.39	8.0	ug/kg	117	119	61-134	2	30
Methylene Chloride	0.57 J	0.24	4.0	ug/kg	99	112	76-124	13	30
n-Propylbenzene	0.07 U	0.07	4.0	ug/kg	97	111	77-120	13	30
Styrene	0.10 U	0.10	4.0	ug/kg	97	109	76-120	11	30
1,1,1,2-Tetrachloroethane	0.11 U	0.11	4.0	ug/kg	94	103	80-120	10	30
1,1,2,2-Tetrachloroethane	0.23 U	0.23	4.0	ug/kg	102	105	71-123	3	30
Tetrachloroethene	0.20 U	0.20	4.0	ug/kg	96	108	77-120	12	30
Toluene	0.08 U	0.08	4.0	ug/kg	96	108	80-120	12	30
1,2,3-Trichlorobenzene	0.14 U	0.14	4.0	ug/kg	94	103	64-120	9	30
1,2,4-Trichlorobenzene	0.18 U	0.18	4.0	ug/kg	93	103	68-120	11	30
1,1,1-Trichloroethane	0.20 U	0.20	4.0	ug/kg	89	99	71-125	11	30
1,1,2-Trichloroethane	0.27 U	0.27	4.0	ug/kg	101	106	80-120	5	30
Trichloroethene	0.15 U	0.15	4.0	ug/kg	91	103	80-120	12	30
Trichlorofluoromethane	0.29 U	0.29	4.0	ug/kg	84	97	58-133	15	30
1,2,3-Trichloropropane	0.33 U	0.33	4.0	ug/kg	100	105	71-123	4	30
1,2,4-Trimethylbenzene	0.40 U	0.40	4.0	ug/kg	96	109	79-120	12	30
1,3,5-Trimethylbenzene	0.10 U	0.10	4.0	ug/kg	95	109	78-120	14	30
Vinyl Chloride	0.20 U	0.20	4.0	ug/kg	82	97	53-120	16	30
m+p-Xylene	0.17 U	0.17	4.0	ug/kg	98	110	80-120	12	30
o-Xylene	0.17 U	0.17	4.0	ug/kg	96	108	80-120	12	30

Batch number: E112722AA
1,4-Dioxane

Sample number(s): 6422528
0.5 U 0.5 2.0

ug/l

105

80-123

Batch number: E112732AA
1,4-Dioxane

Sample number(s): 6422525
5.0 U 5.0 15

ug/kg

98

100

70-130

2

30

Batch number: Y112722AA

Sample number(s): 6422528

Acetone	6	U	6.	20	ug/l	133	112	49-234	17	30
Benzene	0.5	U	0.5	5	ug/l	101	100	79-120	1	30
Bromobenzene	1	U	1.	5	ug/l	106	102	80-120	3	30
Bromochloromethane	1	U	1.	5	ug/l	106	101	80-120	4	30
Bromodichloromethane	1	U	1.	5	ug/l	98	95	80-120	4	30
Bromoform	1	U	1.	5	ug/l	93	90	61-120	3	30
Bromomethane	1	U	1.	5	ug/l	77	77	44-120	0	30
2-Butanone	3	U	3.	10	ug/l	111	103	66-151	7	30
n-Butylbenzene	1	U	1.	5	ug/l	105	101	74-120	3	30
sec-Butylbenzene	1	U	1.	5	ug/l	109	106	78-120	3	30
tert-Butylbenzene	1	U	1.	5	ug/l	105	101	80-120	4	30
Carbon Tetrachloride	1	U	1.	5	ug/l	98	96	75-123	3	30
Chlorobenzene	0.8	U	0.8	5	ug/l	106	102	80-120	4	30
Chloroethane	1	U	1.	5	ug/l	72	72	49-129	0	30
2-Chloroethyl Vinyl Ether	2	U	2.	10	ug/l	111	109	56-129	1	30
Chloroform	0.8	U	0.8	5	ug/l	101	100	77-122	2	30
Chloromethane	1	U	1.	5	ug/l	84	81	60-129	4	30
2-Chlorotoluene	1	U	1.	5	ug/l	106	102	80-120	4	30
4-Chlorotoluene	1	U	1.	5	ug/l	106	102	80-120	5	30
Chlorotrifluoroethene	2	U	2.	5	ug/l	56	57	38-136	2	30
1,2-Dibromo-3-chloropropane	2	U	2.	5	ug/l	97	90	56-126	8	30
Dibromochloromethane	1	U	1.	5	ug/l	98	93	80-120	5	30
1,2-Dibromoethane	1	U	1.	5	ug/l	103	99	80-120	4	30
Dibromomethane	1	U	1.	5	ug/l	101	99	80-120	3	30
1,2-Dichlorobenzene	1	U	1.	5	ug/l	106	103	80-120	3	30
1,3-Dichlorobenzene	1	U	1.	5	ug/l	107	103	80-120	3	30
1,4-Dichlorobenzene	1	U	1.	5	ug/l	106	102	80-120	4	30
Dichlorodifluoromethane	2	U	2.	5	ug/l	72	69	47-120	4	30

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloroethane	1 U	1.	5	ug/l	99	97	79-120	2	30
1,2-Dichloroethane	1 U	1.	5	ug/l	99	94	70-130	6	30
1,1-Dichloroethene	0.8 U	0.8	5	ug/l	87	85	74-123	2	30
cis-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	102	101	80-120	1	30
trans-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	99	97	80-120	2	30
1,2-Dichloropropane	1 U	1.	5	ug/l	102	99	78-120	3	30
1,3-Dichloropropane	1 U	1.	5	ug/l	102	99	80-120	3	30
2,2-Dichloropropane	1 U	1.	5	ug/l	100	97	77-124	3	30
1,1-Dichloropropene	1 U	1.	5	ug/l	99	97	80-120	2	30
cis-1,3-Dichloropropene	1 U	1.	5	ug/l	98	95	80-120	4	30
trans-1,3-Dichloropropene	1 U	1.	5	ug/l	98	95	79-120	2	30
Ethylbenzene	0.8 U	0.8	5	ug/l	105	102	79-120	3	30
Freon 113	2 U	2.	10	ug/l	89	88	69-128	2	30
Freon 133a	2 U	2.	5	ug/l	77	78	77-120	1	30
Hexachlorobutadiene	2 U	2.	5	ug/l	100	97	58-120	3	30
2-Hexanone	3 U	3.	10	ug/l	101	97	65-136	4	30
Isopropylbenzene	1 U	1.	5	ug/l	108	105	77-120	3	30
p-Isopropyltoluene	1 U	1.	5	ug/l	107	104	80-120	3	30
Methyl Tertiary Butyl Ether	0.5 U	0.5	5	ug/l	99	96	76-120	2	30
4-Methyl-2-pentanone	3 U	3.	10	ug/l	96	93	70-121	3	30
Methylene Chloride	2 U	2.	5	ug/l	92	97	80-120	5	30
n-Propylbenzene	1 U	1.	5	ug/l	105	101	80-120	3	30
Styrene	1 U	1.	5	ug/l	107	104	80-120	3	30
1,1,1,2-Tetrachloroethane	1 U	1.	5	ug/l	103	100	80-120	4	30
1,1,2,2-Tetrachloroethane	1 U	1.	5	ug/l	102	98	71-120	4	30
Tetrachloroethene	0.8 U	0.8	5	ug/l	104	102	80-121	2	30
Toluene	0.7 U	0.7	5	ug/l	104	101	79-120	3	30
1,2,3-Trichlorobenzene	1 U	1.	5	ug/l	104	100	65-120	4	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	106	102	67-120	4	30
1,1,1-Trichloroethane	0.8 U	0.8	5	ug/l	98	97	75-127	1	30
1,1,2-Trichloroethane	0.8 U	0.8	5	ug/l	105	102	80-120	3	30
Trichloroethene	1 U	1.	5	ug/l	102	100	80-120	3	30
Trichlorofluoromethane	2 U	2.	5	ug/l	86	84	64-129	3	30
1,2,3-Trichloropropane	1 U	1.	5	ug/l	102	98	80-120	4	30
1,2,4-Trimethylbenzene	1 U	1.	5	ug/l	108	104	74-120	3	30
1,3,5-Trimethylbenzene	1 U	1.	5	ug/l	108	103	75-120	4	30
Vinyl Chloride	1 U	1.	5	ug/l	83	81	65-125	2	30
m+p-Xylene	0.8 U	0.8	5	ug/l	106	102	80-120	3	30
o-Xylene	0.8 U	0.8	5	ug/l	105	102	80-120	3	30

Batch number: 11274WAB026

Sample number(s): 6422547

Acenaphthene	0.010 U	0.010	0.050	ug/l	99	103	74-109	3	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	97	98	70-110	1	30
Anthracene	0.010 U	0.010	0.050	ug/l	100	101	66-111	1	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	100	100	72-114	0	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	99	101	60-127	1	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	102	104	58-151	2	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	102	103	57-131	1	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	104	104	59-130	0	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	104	105	40-138	1	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	104	105	56-148	1	30
Chrysene	0.010 U	0.010	0.050	ug/l	100	100	76-116	0	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	105	105	55-134	1	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	102	103	37-148	1	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	103	103	40-119	1	30
Bis(2-Ethylhexyl)phthalate	0.050 U	0.050	1.0	ug/l	115	116	57-154	1	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	101	101	75-116	0	30
Fluorene	0.010 U	0.010	0.050	ug/l	104	104	75-114	0	30

*- Outside of specification

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	103	104	53-158	1	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	94	94	71-117	0	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	93	93	75-115	0	30
Naphthalene	0.030 U	0.030	0.050	ug/l	95	96	72-109	0	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	57	55	36-89	4	30
Di-n-octylphthalate	0.050 U	0.050	1.0	ug/l	107	109	57-145	3	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	97	96	76-111	1	30
Pyrene	0.010 U	0.010	0.050	ug/l	98	99	69-118	1	30

Batch number: 11276WAC026

Sample number(s): 6422547

Aniline	1	U	1.	5	ug/l	88	86	38-116	3	30
Benzidine	20	U	20.	60	ug/l	57	60	34-117	5	30
Benzoic acid	6	U	6.	15	ug/l	43	18	10-69	82*	30
Benzyl alcohol	5	U	5.	15	ug/l	94	90	66-97	5	30
4-Bromophenyl-phenylether	1	U	1.	5	ug/l	108	96	75-115	13	30
Carbazole	1	U	1.	5	ug/l	113	102	75-120	11	30
4-Chloro-3-methylphenol	1	U	1.	5	ug/l	113	102	70-123	10	30
4-Chloroaniline	1	U	1.	5	ug/l	76	82	24-128	7	30
bis(2-Chloroethoxy)methane	1	U	1.	5	ug/l	108	96	74-124	11	30
bis(2-Chloroethyl)ether	1	U	1.	5	ug/l	109*	100	77-108	8	30
bis(2-Chloroisopropyl)ether	1	U	1.	5	ug/l	100	93	62-127	7	30
2-Chloronaphthalene	2	U	2.	5	ug/l	108	94	54-132	13	30
2-Chlorophenol	1	U	1.	5	ug/l	107	102	71-114	5	30
4-Chlorophenyl-phenylether	2	U	2.	5	ug/l	103	93	77-114	10	30
Dibenzofuran	1	U	1.	5	ug/l	108	95	75-117	13	30
1,2-Dichlorobenzene	1	U	1.	5	ug/l	102	98	55-118	5	30
1,3-Dichlorobenzene	1	U	1.	5	ug/l	103	97	61-111	5	30
1,4-Dichlorobenzene	1	U	1.	5	ug/l	98	94	53-119	4	30
3,3'-Dichlorobenzidine	2	U	2.	5	ug/l	75	78	37-117	4	30
2,4-Dichlorophenol	1	U	1.	5	ug/l	109	101	77-117	8	30
2,4-Dimethylphenol	3	U	3.	10	ug/l	109	99	72-110	9	30
3,5-Dimethylphenol	3	U	3.	10	ug/l	109	97	70-130	12	30
4,6-Dinitro-2-methylphenol	5	U	5.	15	ug/l	108	97	65-126	10	30
2,4-Dinitrophenol	10	U	10.	30	ug/l	102	91	52-131	11	30
2,4-Dinitrotoluene	1	U	1.	5	ug/l	110	99	76-119	10	30
2,6-Dinitrotoluene	1	U	1.	5	ug/l	116	106	76-118	9	30
1,2-Diphenylhydrazine	1	U	1.	5	ug/l	117	104	68-127	12	30
Hexachlorobenzene	1	U	1.	5	ug/l	104	92	75-119	13	30
Hexachlorobutadiene	1	U	1.	5	ug/l	99	89	57-124	10	30
Hexachlorocyclopentadiene	5	U	5.	15	ug/l	90	78	36-118	14	30
Hexachloroethane	1	U	1.	5	ug/l	103	97	52-113	5	30
Isophorone	1	U	1.	5	ug/l	111	99	74-117	12	30
2-Methylphenol	1	U	1.	5	ug/l	103	96	58-110	7	30
4-Methylphenol	2	U	2.	5	ug/l	96	91	49-108	5	30
2-Nitroaniline	1	U	1.	5	ug/l	106	95	75-120	10	30
3-Nitroaniline	1	U	1.	5	ug/l	102	98	74-113	4	30
4-Nitroaniline	1	U	1.	5	ug/l	75	71	59-100	5	30
Nitrobenzene	1	U	1.	5	ug/l	111*	102	75-109	9	30
2-Nitrophenol	1	U	1.	5	ug/l	115	106	76-118	9	30
4-Nitrophenol	10	U	10.	30	ug/l	53	50	16-78	7	30
N-Nitroso-di-n-propylamine	1	U	1.	5	ug/l	102	93	69-110	9	30
N-Nitrosodiphenylamine	2	U	2.	5	ug/l	115	101	67-136	13	30
Pentachlorophenol	3	U	3.	15	ug/l	100	96	53-110	4	30
Phenol	1	U	1.	5	ug/l	53	50	21-67	6	30
1,2,4-Trichlorobenzene	1	U	1.	5	ug/l	103	95	71-112	8	30
2,4,5-Trichlorophenol	1	U	1.	5	ug/l	107	96	79-107	12	30
2,4,6-Trichlorophenol	1	U	1.	5	ug/l	117	101	76-120	14	30

*- 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: 11/03/11 at 02:54 PM

Group Number: 1268901

<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: 11280SLB026	Sample number(s): 6422522-6422524, 6422526-6422527								
N-Nitrosodimethylamine	16.7	U 16.7	33.3	ng/kg	80		70-130		
Batch number: 11281SLA026	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422541, 6422545-6422546								
Acenaphthene	0.67	U 0.67	1.7	ug/kg	91		63-120		
Acenaphthylene	0.33	U 0.33	1.7	ug/kg	85		60-120		
Anthracene	0.33	U 0.33	1.7	ug/kg	89		73-113		
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	91		58-129		
Benzo(b)fluoranthene	0.67	U 0.67	1.7	ug/kg	96		63-143		
Benzo(g,h,i)perylene	0.67	U 0.67	1.7	ug/kg	101		66-150		
Benzo(k)fluoranthene	0.67	U 0.67	1.7	ug/kg	93		54-142		
Butylbenzylphthalate	6.0	U 6.0	18	ug/kg	117		65-131		
Di-n-butylphthalate	6.0	U 6.0	18	ug/kg	104		75-137		
Chrysene	0.33	U 0.33	1.7	ug/kg	91		73-114		
Dibenz(a,h)anthracene	0.67	U 0.67	1.7	ug/kg	102		53-138		
Diethylphthalate	6.0	U 6.0	18	ug/kg	92		68-125		
Dimethylphthalate	6.0	U 6.0	18	ug/kg	93		79-121		
Bis(2-Ethylhexyl)phthalate	6.0	U 6.0	18	ug/kg	121		67-143		
Fluoranthene	0.67	U 0.67	1.7	ug/kg	94		64-120		
Fluorene	0.67	U 0.67	1.7	ug/kg	90		71-120		
Indeno(1,2,3-cd)pyrene	0.67	U 0.67	1.7	ug/kg	100		56-134		
1-Methylnaphthalene	0.67	U 0.67	1.7	ug/kg	81		72-120		
2-Methylnaphthalene	0.67	U 0.67	1.7	ug/kg	80		62-120		
Naphthalene	0.67	U 0.67	1.7	ug/kg	81		67-120		
N-Nitrosodimethylamine	0.67	U 0.67	1.7	ug/kg	80		55-118		
Di-n-octylphthalate	6.0	U 6.0	18	ug/kg	121		68-162		
Phenanthrene	0.67	U 0.67	1.7	ug/kg	87		75-120		
Pyrene	0.67	U 0.67	1.7	ug/kg	92		72-119		
Batch number: 11283SLA026	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422541, 6422545-6422546								
Acenaphthene	17	U 17.	170	ug/kg	96		76-111		
Acenaphthylene	17	U 17.	170	ug/kg	106		75-122		
Aniline	170	U 170.	500	ug/kg	72		20-115		
Anthracene	17	U 17.	170	ug/kg	103		76-112		
Benzidine	1,200	U 1,200.	3,300	ug/kg	45		15-121		
Benzo(a)anthracene	17	U 17.	170	ug/kg	104		73-112		
Benzo(a)pyrene	17	U 17.	170	ug/kg	104		65-124		
Benzo(b)fluoranthene	17	U 17.	170	ug/kg	107		61-127		
Benzo(g,h,i)perylene	17	U 17.	170	ug/kg	102		60-125		
Benzo(k)fluoranthene	17	U 17.	170	ug/kg	105		67-125		
Benzoic acid	170	U 170.	500	ug/kg	104		62-113		
Benzyl alcohol	170	U 170.	500	ug/kg	95		68-111		
4-Bromophenyl-phenylether	17	U 17.	170	ug/kg	101		73-114		
2-butoxy-Ethanol	1,700	U 1,700.	1,700	ug/kg					
Butylbenzylphthalate	17	U 17.	170	ug/kg	100		75-115		
Di-n-butylphthalate	17	U 17.	170	ug/kg	103		79-112		
Carbazole	17	U 17.	170	ug/kg	99		77-113		
4-Chloro-3-methylphenol	33	U 33.	170	ug/kg	101		74-119		
4-Chloroaniline	67	U 67.	170	ug/kg	48		10-110		
bis(2-Chloroethoxy)methane	17	U 17.	170	ug/kg	96		70-118		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
bis(2-Chloroethyl) ether	17 U	17.	170	ug/kg	92		70-104		
bis(2-Chloroisopropyl) ether	17 U	17.	170	ug/kg	91		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	88		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	97		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	99		74-115		
Chrysene	17 U	17.	170	ug/kg	93		76-113		
Dibenz (a, h) anthracene	17 U	17.	170	ug/kg	105		61-126		
Dibenzofuran	17 U	17.	170	ug/kg	95		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	89		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	87		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	88		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	41		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	101		75-111		
Diethylphthalate	17 U	17.	170	ug/kg	103		76-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	98		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	108		83-120		
Dimethylphthalate	17 U	17.	170	ug/kg	101		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	79		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	73		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	102		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	105		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	98		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	104		75-117		
Fluoranthene	17 U	17.	170	ug/kg	106		78-116		
Fluorene	17 U	17.	170	ug/kg	102		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	100		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	94		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	102		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	87		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	104		64-119		
Isophorone	17 U	17.	170	ug/kg	97		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	94		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	97		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	99		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	95		66-117		
Naphthalene	17 U	17.	170	ug/kg	92		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	104		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	100		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	75		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	99		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	85		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	92		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	86		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	101		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	110		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	97		51-117		
Phenanthrene	17 U	17.	170	ug/kg	96		77-113		
Phenol	17 U	17.	170	ug/kg	95		58-112		
2-phenoxy-Ethanol	1,700 U	1,700.	1,700	ug/kg					
Pyrene	17 U	17.	170	ug/kg	97		75-115		

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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: 11/03/11 at 02:54 PM

Group Number: 1268901

<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>
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	103		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	106		78-111		
Batch number: 11274A34A	Sample number(s): 6422522-6422527								
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	71		67-119		
Batch number: 11279A20A	Sample number(s): 6422528								
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	100	100	75-135	0	30
Batch number: 112740006A	Sample number(s): 6422522-6422524, 6422526-6422527								
20a Formaldehyde 8315A	600 U	600.	1,500	ug/kg	108		80-126		
Batch number: 112720023A	Sample number(s): 6422547								
2,4-D	0.16 U	0.16	0.50	ug/l	96	88	73-157	9	30
Dalapon	0.25 U	0.25	1.3	ug/l	92	79	40-100	15	30
2,4-DB	0.30 U	0.30	1.0	ug/l	88	80	65-130	10	30
Dicamba	0.080 U	0.080	0.30	ug/l	104	100	68-135	4	30
Dinoseb	0.10 U	0.10	0.50	ug/l	77	74	32-91	3	30
2,4-DP (Dichlorprop)	0.16 U	0.16	0.50	ug/l	120	116	76-170	3	30
MCPA	300 U	300.	1,000	ug/l	94	90	65-128	4	30
MCPP	50 U	50.	200	ug/l	120	116	67-137	3	30
2,4,5-T	0.015 U	0.015	0.050	ug/l	72	68	63-147	6	30
2,4,5-TP	0.010 U	0.010	0.050	ug/l	96	92	63-134	4	30
Batch number: 112790018A	Sample number(s): 6422529-6422541, 6422543-6422546								
2,4-D	1.2 U	1.2	3.6	ug/kg			73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	61		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	94		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	87		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	13		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	106		62-170		
MCPA	76 U	76.	250	ug/kg	76		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	97		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	101		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	80		68-114		
Batch number: 112770016A	Sample number(s): 6422522, 6422530, 6422535, 6422545								
6a Perchlorate EPA 6850	2.1 U	2.1	5.0	ug/kg	98		85-115		
Batch number: 112740023A	Sample number(s): 6422547								
Aroclor 5432	0.10 U	0.10	0.50	ug/l					
Aroclor 5442	0.10 U	0.10	0.50	ug/l	72	74	35-84	3	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	98	98	51-128	0	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	102	106	56-135	4	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

<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: 112740024A Sample number(s): 6422547									
Aldrin	0.0020 U	0.0020	0.010	ug/l	92	94	54-159	2	30
Alpha BHC	0.0030 U	0.0030	0.010	ug/l	93	96	59-146	3	30
Beta BHC	0.0029 U	0.0029	0.010	ug/l	99	103	73-147	4	30
Gamma BHC - Lindane	0.0020 U	0.0020	0.010	ug/l	94	98	68-128	4	30
Chlordane	0.12 U	0.12	0.50	ug/l					
p,p-DDD	0.0050 U	0.0050	0.020	ug/l	105	105	71-139	0	30
p,p-DDE	0.0050 U	0.0050	0.020	ug/l	105	111	66-130	5	30
p,p-DDT	0.0050 U	0.0050	0.020	ug/l	95	100	53-126	5	30
Delta BHC	0.0029 U	0.0029	0.010	ug/l	103	103	76-148	0	30
Dieldrin	0.0053 U	0.0053	0.020	ug/l	95	100	76-132	5	30
Endosulfan I	0.0043 U	0.0043	0.010	ug/l	79	82	68-128	4	30
Endosulfan II	0.015 U	0.015	0.020	ug/l	85	90	59-144	6	30
Endosulfan Sulfate	0.0058 U	0.0058	0.020	ug/l	90	95	71-142	5	30
Endrin	0.0081 U	0.0081	0.020	ug/l	75	95	52-132	24	30
Endrin Aldehyde	0.020 U	0.020	0.10	ug/l	85	90	68-139	6	20
Endrin Ketone	0.0050 U	0.0050	0.020	ug/l	100	95	69-146	5	30
Heptachlor	0.0026 U	0.0026	0.010	ug/l	91	94	57-126	3	30
Heptachlor Epoxide	0.0023 U	0.0023	0.010	ug/l	99	102	73-156	3	30
Methoxychlor	0.030 U	0.030	0.10	ug/l	93	100	52-133	7	30
Mirex	0.085 U	0.085	0.25	ug/l					
Toxaphene	1.0 U	1.0	3.0	ug/l					
Batch number: 112800017A Sample number(s): 6422529-6422541, 6422543-6422546									
Aldrin	0.066 U	0.066	0.17	ug/kg			44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg			38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg			56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg			46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg			60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg			59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg			54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg			55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg			65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg			45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg			63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg			72-138		
Endrin	0.066 U	0.066	0.34	ug/kg			62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg			55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg			69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg			43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg			65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg			59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					
Batch number: 112800018A Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422541, 6422543-6422546									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg					
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg			72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

<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>
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 112730032A	Sample number(s): 6422522-6422524, 6422526-6422527								
Ethanol	100 U	100.	500	ug/kg	99		71-129		
Isopropanol	100 U	100.	500	ug/kg	95		75-125		
Methanol	100 U	100.	500	ug/kg	98		68-129		
Batch number: 112790048A	Sample number(s): 6422522-6422524, 6422526-6422527								
Diethylene glycol	5.0 U	5.0	10	mg/kg	94		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	96		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	84		67-131		
Batch number: 112790036A	Sample number(s): 6422522-6422524, 6422526-6422527								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	101		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	106		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	103		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	102		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	87		49-107		
Batch number: 112790037A	Sample number(s): 6422522-6422524, 6422526-6422527								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	100		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		69-109		
Batch number: 112721026002A	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546								
Antimony	0.0740 U	0.0740	0.200	mg/kg	106		10-224		
Arsenic	0.0800 U	0.0800	0.400	mg/kg	109		78-122		
Beryllium	0.0160 U	0.0160	0.100	mg/kg	105		80-120		
Cadmium	0.0440 U	0.0440	0.100	mg/kg	111		81-119		
Chromium	0.120 U	0.120	0.400	mg/kg	117		77-123		
Cobalt	0.0200 U	0.0200	0.100	mg/kg	105		80-119		
Copper	0.0800 U	0.0800	0.400	mg/kg	109		78-122		
Lead	0.0226 J	0.0102	0.200	mg/kg	105		77-123		
Nickel	0.100 U	0.100	0.400	mg/kg	115		80-120		
Silver	0.0142 U	0.0142	0.100	mg/kg	111		66-134		
Thallium	0.0300 U	0.0300	0.100	mg/kg	104		75-124		
Vanadium	0.0220 U	0.0220	0.100	mg/kg	119		76-124		
Zinc	0.560 U	0.560	3.00	mg/kg	112		79-121		
Batch number: 112721026002B	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546								
Selenium	0.0580 U	0.0580	0.400	mg/kg	117		77-123		
Batch number: 112721026002C	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546								
Molybdenum	0.0500 U	0.0500	0.100	mg/kg	115		76-123		
Batch number: 112721026002D	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546								
Barium	0.106 U	0.106	0.400	mg/kg	109		80-120		
Batch number: 112725708002	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546								

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

<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>
Aluminum	10.2 J	6.05	20.0	mg/kg	145		42-158		
Boron	0.529 J	0.360	5.00	mg/kg	109		66-134		
Calcium	41.1	2.50	20.0	mg/kg	107		79-121		
Iron	24.7	2.61	20.0	mg/kg	133		51-149		
Lithium	0.62 U	0.62	2.0	mg/kg	100		80-120		
Magnesium	31.2	0.440	10.0	mg/kg	122		64-136		
Manganese	0.174 J	0.0360	0.500	mg/kg	100		78-122		
Phosphorus	1.50 J	0.350	10.0	mg/kg	104		80-120		
Potassium	11.5 J	11.3	50.0	mg/kg	115		69-131		
Sodium	5.95 U	5.95	100	mg/kg	109		71-129		
Strontium	0.0670 J	0.0250	0.500	mg/kg	103		81-119		
Tin	1.53 J	0.320	10.0	mg/kg	97		74-126		
Titanium	0.112 J	0.0710	1.00	mg/kg	88		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	104		80-120		

Batch number: 112725711003

Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546

Mercury 0.0067 U 0.0067 0.0958 mg/kg 94 72-128

Batch number: 112781848003

Sample number(s): 6422547

Aluminum	0.0801 U	0.0801	0.200	mg/l	99	97	90-112	1	20
Boron	0.0022 U	0.0022	0.0500	mg/l	94	94	89-110	1	20
Calcium	0.0705 U	0.0705	0.200	mg/l	103	103	90-110	0	20
Iron	0.0141 U	0.0141	0.200	mg/l	99	99	90-112	0	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	98	98	90-110	0	20
Magnesium	0.0067 U	0.0067	0.100	mg/l	100	100	90-110	0	20
Manganese	0.00044 U	0.00044	0.0050	mg/l	102	101	90-110	0	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	98	98	90-110	0	20
Potassium	0.0874 U	0.0874	0.500	mg/l	101	101	85-115	0	20
Sodium	0.0647 U	0.0647	1.00	mg/l	96	95	87-114	1	20
Strontium	0.00022 J	0.00022	0.0050	mg/l	100	99	90-110	1	20
Tin	0.0043 U	0.0043	0.0200	mg/l	98	98	90-110	1	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	101	99	90-113	1	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	101	101	90-110	1	20

Batch number: 112785713001

Sample number(s): 6422547

Mercury 0.000042 J 0.00002 0.00020 mg/l 102 107 80-120 5 20

Batch number: 112786050001A

Sample number(s): 6422547

Antimony	0.00042 U	0.00042	0.0010	mg/l	108	107	87-110	0	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	109	102	86-111	7	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	107	106	90-113	0	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	105	105	90-114	0	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	106	105	90-118	1	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	101	102	87-113	2	20
Copper	0.00038 U	0.00038	0.0020	mg/l	107	107	90-113	0	20
Lead	0.000080 U	0.00008	0.0010	mg/l	102	106	90-115	3	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	105	107	90-113	1	20
Silver	0.000098 U	0.00009	0.00050	mg/l	107	108	90-115	1	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	97	105	89-116	7	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	103	104	89-116	2	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	106	104	90-116	2	20

Batch number: 112786050001B

Sample number(s): 6422547

Selenium 0.00027 U 0.00027 0.0020 mg/l 110 114 85-114 3 20

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Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

<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: 112786050001C Molybdenum	Sample number(s): 6422547 0.00025 U	0.00025	0.00050	mg/l	106	105	89-115	1	20
Batch number: 112786050001D Barium	Sample number(s): 6422547 0.00069 U	0.00069	0.0020	mg/l	108	104	88-113	4	20
Batch number: 11272281101A 7b Perchlorate EPA 314.0	Sample number(s): 6422547 0.70 U	0.70	2.0	ug/l	95	107	85-115	12	20
Batch number: 11272281401A 3b Cr VI by EPA 7199	Sample number(s): 6422547 5.0 U	5.0	10.0	ug/l	100	100	90-110	0	20
Batch number: 11278621201A 7a Perchlorate EPA 314.0	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422533 9.0 U	9.0	30.0	ug/kg	111		85-115		
Batch number: 11278621201B 7a Perchlorate EPA 314.0	Sample number(s): 6422534-6422540, 6422542, 6422545-6422546 9.0 U	9.0	30.0	ug/kg	111		85-115		
Batch number: 11279196902C 11b Anions by 300.0 - Fluoride	Sample number(s): 6422547 0.080 U	0.080	0.10	mg/l	90	90	90-110	1	20
Batch number: 11283243202A 3a Cr VI by EPA 7199	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422540, 6422542, 6422545-6422546 0.20 U	0.20	1.0	mg/kg	88		80-120		
Batch number: 11285285201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422533 0.80 U	0.80	1.0	mg/kg	98		90-110		
Batch number: 11285285201B 11a Anions by 300.0 - Nitrate	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422533 0.80 U	0.80	1.5	mg/kg	101		90-110		
Batch number: 11285285201B 11a Anions by 300.0 - Fluoride	Sample number(s): 6422534-6422540, 6422542, 6422545-6422546 0.80 U	0.80	1.0	mg/kg	98		90-110		
Batch number: 11273020001A 17b pH by 9040B	Sample number(s): 6422547				100	100	90-110	0	3
Batch number: 11285039401A 17a pH by 9045C	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422532 100				100		95-105		
Batch number: 11285039401B 17a pH by 9045C	Sample number(s): 6422533-6422539, 6422542, 6422545-6422546 100				100		95-105		
Batch number: 11278162402A Moisture Content by 160.3	Sample number(s): 6422522-6422527, 6422529-6422531 100				100		80-120		
Batch number: 11278162402B 28a Moisture Content by 160.3	Sample number(s): 6422532-6422543, 6422545 100				100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Batch number: 11279162401A Moisture Content by 160.3	Sample number(s): 6422546 100				100		80-120		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: E112722AA 1,4-Dioxane	135	134	73-138	0	30				
Batch number: 11280SLB026 N-Nitrosodimethylamine	134*	100	70-130	29	30				
Batch number: 11281SLA026									
Sample number(s): 6422528 UNSPK: P422276									
Sample number(s): 6422522-6422524, 6422526-6422527 UNSPK: P421299									
Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422541, 6422545-6422546 UNSPK: 6422539									
Acenaphthene	84	84	63-105	0	30				
Acenaphthylene	83	82	67-114	1	30				
Anthracene	89	87	73-115	2	30				
Benzo(a)anthracene	89	85	59-128	4	30				
Benzo(a)pyrene	90	88	58-142	2	30				
Benzo(b)fluoranthene	93	91	54-163	2	30				
Benzo(g,h,i)perylene	61	59	33-141	3	30				
Benzo(k)fluoranthene	91	92	57-153	1	30				
Butylbenzylphthalate	107	102	57-173	5	30				
Di-n-butylphthalate	108	104	65-148	4	30				
Chrysene	89	85	67-123	5	30				
Dibenz(a,h)anthracene	69	68	22-133	1	30				
Diethylphthalate	97	95	70-136	2	30				
Dimethylphthalate	93	92	74-118	0	30				
Bis(2-Ethylhexyl)phthalate	133	119	39-167	11	30				
Fluoranthene	93	91	51-149	2	30				
Fluorene	90	87	66-122	3	30				
Indeno(1,2,3-cd)pyrene	68	67	21-143	2	30				
1-Methylnaphthalene	80	80	72-123	0	30				
2-Methylnaphthalene	80	79	64-103	1	30				
Naphthalene	81	81	61-102	1	30				
N-Nitrosodimethylamine	79	74	48-113	6	30				
Di-n-octylphthalate	110	103	40-192	6	30				
Phenanthrene	87	84	62-122	3	30				
Pyrene	87	84	51-131	4	30				
Batch number: 11283SLA026									
Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422541, 6422545-6422546 UNSPK: 6422539									
Acenaphthene	92	95	75-115	4	30				
Acenaphthylene	102	105	81-110	3	30				
Aniline	63	66	18-116	5	30				
Anthracene	99	103	75-115	4	30				
Benzydine	14*	0*	35-141	200*	30				
Benzo(a)anthracene	93	97	65-122	4	30				
Benzo(a)pyrene	103	105	57-126	3	30				
Benzo(b)fluoranthene	117	121	59-125	3	30				
Benzo(g,h,i)perylene	99	100	59-127	2	30				
Benzo(k)fluoranthene	94	95	56-132	2	30				
Benzoic acid	26	29	10-173	10	30				
Benzyl alcohol	96	98	67-115	3	30				
4-Bromophenyl-phenylether	101	103	67-129	3	30				
Butylbenzylphthalate	97	100	73-134	3	30				
Di-n-butylphthalate	100	104	67-123	4	30				
Carbazole	93	95	64-120	3	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
4-Chloro-3-methylphenol	102	104	62-122	2	30				
4-Chloroaniline	54	70	13-107	27	30				
bis(2-Chloroethoxy)methane	95	96	75-104	1	30				
bis(2-Chloroethyl) ether	91	93	60-116	3	30				
bis(2-Chloroisopropyl) ether	90	92	55-142	3	30				
2-Chloronaphthalene	68	95	50-141	33*	30				
2-Chlorophenol	97	99	73-121	3	30				
4-Chlorophenyl-phenylether	97	99	80-109	3	30				
Chrysene	83	86	62-128	4	30				
Dibenz(a,h)anthracene	101	105	65-125	4	30				
Dibenzofuran	91	94	71-112	4	30				
1,2-Dichlorobenzene	88	88	66-108	1	30				
1,3-Dichlorobenzene	85	85	63-109	1	30				
1,4-Dichlorobenzene	85	86	58-108	2	30				
3,3'-Dichlorobenzidine	47	58	28-109	22	30				
2,4-Dichlorophenol	100	103	66-123	3	30				
Diethylphthalate	98	101	66-118	3	30				
2,4-Dimethylphenol	97	97	68-118	1	30				
3,5-Dimethylphenol	107	110	71-127	3	30				
Dimethylphthalate	97	99	64-118	2	30				
4,6-Dinitro-2-methylphenol	54	59	11-126	10	30				
2,4-Dinitrophenol	28	31	20-143	12	30				
2,4-Dinitrotoluene	98	100	56-129	3	30				
2,6-Dinitrotoluene	103	105	69-123	2	30				
1,2-Diphenylhydrazine	96	99	71-129	4	30				
bis(2-Ethylhexyl)phthalate	100	103	63-122	3	30				
Fluoranthene	98	100	73-112	3	30				
Fluorene	98	101	63-121	3	30				
Hexachlorobenzene	99	103	77-114	4	30				
Hexachlorobutadiene	92	93	62-120	1	30				
Hexachlorocyclopentadiene	70	72	10-153	3	30				
Hexachloroethane	84	85	57-109	1	30				
Indeno(1,2,3-cd)pyrene	101	104	61-126	3	30				
Isophorone	94	96	73-102	2	30				
1-Methylnaphthalene	92	94	64-122	2	30				
2-Methylnaphthalene	95	96	76-114	1	30				
2-Methylphenol	99	101	75-111	2	30				
4-Methylphenol	95	98	59-123	3	30				
Naphthalene	90	91	72-116	2	30				
2-Nitroaniline	101	105	67-125	3	30				
3-Nitroaniline	96	99	59-122	4	30				
4-Nitroaniline	74	81	41-109	8	30				
Nitrobenzene	91	94	57-125	3	30				
2-Nitrophenol	97	99	56-127	3	30				
4-Nitrophenol	78	80	37-129	3	30				
N-Nitroso-di-n-propylamine	92	93	60-116	2	30				
N-Nitrosodimethylamine	80	83	47-116	5	30				
N-Nitrosodiphenylamine	99	102	71-122	4	30				
Di-n-octylphthalate	121	123	56-126	2	30				
Pentachlorophenol	83	87	28-127	5	30				
Phenanthrene	93	96	65-125	4	30				
Phenol	94	96	58-126	3	30				
Pyrene	94	96	74-126	3	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
1,2,4-Trichlorobenzene	91	92	72-115	1	30			
2,4,5-Trichlorophenol	99	103	58-129	4	30			
2,4,6-Trichlorophenol	104	107	56-134	3	30			
Batch number: 11274A34A	Sample number(s): 6422522-6422527 UNSPK: P421299							
9a TPH by EPA 8015B Gas C5-C12	77	77	39-118	9	30			
Batch number: 112740006A	Sample number(s): 6422522-6422524,6422526-6422527 UNSPK: P421299							
20a Formaldehyde 8315A	107	109	80-120	2	50			
Batch number: 112790018A	Sample number(s): 6422529-6422541,6422543-6422546 UNSPK: 6422539							
2,4-D	85	18	17-180	131*	35			
Dalapon	47	24	10-125	65*	50			
2,4-DB	131	195	10-201	39	50			
Dicamba	86	92	10-190	7	50			
Dinoseb	13	10	10-46	26	35			
2,4-DP (Dichlorprop)	91	80	33-178	13	50			
MCPA	52	27	10-213	62*	50			
MCPP (Mecoprop)	77	79	10-184	2	50			
2,4,5-T	37	25	10-156	38*	35			
2,4,5-TP	19*	8*	24-141	17	35			
Batch number: 112770016A	Sample number(s): 6422522,6422530,6422535,6422545 UNSPK: P417427							
6a Perchlorate EPA 6850	103	112	80-120	8	20			
Batch number: 112800017A	Sample number(s): 6422529-6422541,6422543-6422546 UNSPK: 6422539							
Aldrin	82	79	16-126	4	50			
Alpha BHC	74	68	10-129	8	50			
Beta BHC	97	94	14-147	3	50			
Gamma BHC - Lindane	75	69	10-140	7	50			
p,p-DDD	107	99	16-163	9	50			
p,p-DDE	90	85	18-161	5	50			
p,p-DDT	89	89	10-176	0	50			
Delta BHC	97	97	23-140	0	50			
Dieldrin	54	50	19-154	8	50			
Endosulfan I	68	65	16-137	4	50			
Endosulfan II	69	66	28-154	5	50			
Endosulfan Sulfate	89	82	21-160	9	50			
Endrin	79	75	11-149	6	50			
Endrin Aldehyde	83	73	10-148	14	35			
Endrin Ketone	85	85	22-165	2	50			
Heptachlor	88	97	13-126	10	50			
Heptachlor Epoxide	97	97	13-157	0	50			
Methoxychlor	57	59	32-147	3	50			
Batch number: 112800018A	Sample number(s): 6422522-6422524,6422526-6422527,6422529-6422541,6422543-6422546 UNSPK: 6422539							
PCB-1016	100	109	29-146	9	50			
PCB-1260	113	128	39-149	12	50			
Batch number: 112730032A	Sample number(s): 6422522-6422524,6422526-6422527 UNSPK: P419519							
Ethanol	88	67	48-130	27*	20			
Isopropanol	84	64	12-149	28*	20			

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Sample Matrix Quality Control

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Methanol	87	68	43-138	24*	20			
Batch number: 112790048A	Sample number(s): 6422522-6422524, 6422526-6422527 UNSPK: P430028							
Diethylene glycol	28*	34*	59-109	20	20			
Ethylene glycol	58*	61*	63-107	5	20			
Propylene glycol	61*	63	63-107	2	20			
Batch number: 112790036A	Sample number(s): 6422522-6422524, 6422526-6422527 UNSPK: P421299							
EFH (C12-C14)	95	101	49-123	5	20			
EFH (C15-C20)	110	91	49-123	13	20			
EFH (C21-C30)	-50*	35*	49-123	22*	20			
EFH (C30 - C40)	-175	-220	49-123	6	20			
	(2)	(2)						
EFH (C8-C11)	90	87	49-123	5	20			
Batch number: 112790037A	Sample number(s): 6422522-6422524, 6422526-6422527 UNSPK: P421299							
m-Terphenyl	91	96	75-125	6	20			
o-Terphenyl	93	99	75-125	6	20			
p-Terphenyl	92	98	75-125	6	20			
Batch number: 112721026002A	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539							
Antimony	61*	61*	75-125	1	20	0.376	0.339	10 (1) 20
Arsenic	145*	122	75-125	5	20	7.10	7.34	3 20
Beryllium	116	111	75-125	2	20	1.11	1.05	5 20
Cadmium	130*	132*	75-125	1	20	0.292	0.297	1 (1) 20
Chromium	111	139*	75-125	5	20	38.4	39.2	2 20
Cobalt	125	129*	75-125	2	20	13.4	13.4	0 20
Copper	127*	128*	75-125	0	20	20.7	20.8	0 20
Lead	127*	141 (2)	75-125	2	20	11.9	11.8	1 20
Nickel	140*	158*	75-125	4	20	26.7	27.7	4 20
Silver	129*	128*	75-125	1	20	0.0466 J	0.0357 J	26* (1) 20
Thallium	129*	123	75-125	3	20	0.415	0.435	5 (1) 20
Vanadium	130 (2)	184 (2)	75-125	6	20	75.8	78.6	4 20
Zinc	135 (2)	119 (2)	75-125	2	20	97.6	97.7	0 20
Batch number: 112721026002B	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539							
Selenium	113	117	75-125	2	20	0.261 J	0.248 J	5 (1) 20
Batch number: 112721026002C	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539							
Molybdenum	132*	132*	75-125	1	20	0.526	0.594	12 20
Batch number: 112721026002D	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539							
Barium	-299	-318	75-125	1	20	175	178	2 20
	(2)	(2)						
Batch number: 112725708002	Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539							
Aluminum	2353	2665	75-125	2	20	30,700	29,900	2 20
	(2)	(2)						

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Boron	100	100	84-115	2	20	14.9	14.9	0 (1)	20
Calcium	29 (2)	93 (2)	75-125	3	20	8,840	8,330	6	20
Iron	-314 (2)	1817 (2)	75-125	6	20	35,900	34,900	3	20
Lithium	99	102	82-114	3	20	30.3	29.9	1	20
Magnesium	134 (2)	182 (2)	75-125	1	20	8,490	8,390	1	20
Manganese	84 (2)	100 (2)	75-125	2	20	355	355	0	20
Phosphorus	94 (2)	117 (2)	75-125	4	20	490	502	2	20
Potassium	146 (2)	161 (2)	75-125	3	20	4,780	4,800	1	20
Sodium	97	97	75-125	1	20	96.2 J	95.5 J	1 (1)	20
Strontium	95	96	75-115	2	20	38.6	37.7	3	20
Tin	84	85	80-110	3	20	2.83 J	2.62 J	8 (1)	20
Titanium	412 (2)	508 (2)	75-125	5	20	1,480	1,470	1	20
Zirconium	89	90	81-110	3	20	4.59 J	5.47	17 (1)	20
Batch number: 112725711003 Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539									
Mercury	105	106	65-135	4	20	0.0069 U	0.0069 U	0 (1)	20
Batch number: 11272281401A Sample number(s): 6422547 UNSPK: P422401 BKG: P422401									
3b Cr VI by EPA 7199	96		59-135			5.0 U	5.0 U	0 (1)	20
Batch number: 11278621201A Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422533 UNSPK: 6422522 BKG: 6422522									
7a Perchlorate EPA 314.0	114		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11278621201B Sample number(s): 6422534-6422540, 6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539									
7a Perchlorate EPA 314.0	115		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11283243202A Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422540, 6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539									
3a Cr VI by EPA 7199	112		75-125			0.20 U	1.0	200* (1)	20
Batch number: 11285285201A Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422533 UNSPK: 6422522 BKG: 6422522									
11a Anions by 300.0 - Fluoride	76*		80-120			2.5	2.0	25* (1)	20
11a Anions by 300.0 - Nitrate	99		80-120			1.8	1.5 J	20 (1)	20
Batch number: 11285285201B Sample number(s): 6422534-6422540, 6422542, 6422545-6422546 UNSPK: 6422539 BKG: 6422539									
11a Anions by 300.0 - Fluoride	83		80-120			1.4	1.2	16 (1)	20
Batch number: 11285039401A Sample number(s): 6422522-6422524, 6422526-6422527, 6422529-6422532 BKG: 6422532									
17a pH by 9045C						6.05	6.05	0	3
Batch number: 11285039401B Sample number(s): 6422533-6422539, 6422542, 6422545-6422546 BKG: 6422539									
17a pH by 9045C						7.61	7.61	0	3
Batch number: 11278162402A Sample number(s): 6422522-6422527, 6422529-6422531 BKG: 6422524									
Moisture Content by 160.3						7.6	7.4	2	20
Moisture Content by 160.3						7.6	7.4	2	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	BKG MAX	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11278162402B	Sample number(s): 6422532-6422543, 6422545				BKG: 6422539			
28a Moisture Content by 160.3					4.0	3.9	2	20
Moisture Content by 160.3					4.0	3.9	2	20
Moisture Content by 160.3					4.0	3.9	2	20
Batch number: 11279162401A	Sample number(s): 6422546				BKG: P419519			
Moisture Content by 160.3					4.6	4.9	5	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: 1a Volatile Organics EPA 8260B

Batch number: B112771AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6422525	101	103	101	93
Blank	99	95	102	93
LCS	99	99	106	100
LCSD	99	100	105	100
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 14b 1,4-Dioxane by 8260B SIM

Batch number: E112722AA

Toluene-d8

6422528	101
Blank	101
LCS	101
MS	101
MSD	101

Limits: 80-120

Analysis Name: 14a 1,4-Dioxane by 8260B SIM

Batch number: E112732AA

Toluene-d8

6422525	94
Blank	94
LCS	94
LCSD	94

Limits: 70-130

Analysis Name: 1b Volatile Organics EPA8260B

Batch number: Y112722AA

Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Surrogate Quality Control

6422528	98	98	99	99
Blank	98	101	99	98
LCS	99	103	100	99
LCSD	100	103	100	99

Limits: 86-118 80-120 88-110 86-115

Analysis Name: 4b Select SVOC EPA 8270SIM

Batch number: 11274WAB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6422547	93	91	93
Blank	106	99	103
LCS	112	93	94
LCSD	111	92	93

Limits: 40-130 45-130 45-135

Analysis Name: 5b Semivolatiles by EPA 8270C

Batch number: 11276WAC026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6422547	59	35	93	92	93	85
Blank	63	42	94	96	94	85
LCS	77	53	103	108	104	93
LCSD	74	50	92	96	94	83

Limits: 20-130 20-120 30-130 40-130 45-130 45-135

Analysis Name: 21a NDMA by 1625C

Batch number: 11280SLB026

	N-Nitrosodimethylamine-d6
6422522	128
6422523	126
6422524	117
6422526	122
6422527	115
Blank	125
LCS	129
MS	110
MSD	106

Limits: 50-150

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11281SLA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6422522	87	80	83
6422523	84	75	80
6422524	89	82	86
6422526	95	80	89
6422527	74	67	77
6422529	91	81	91

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Surrogate Quality Control

6422530	97	81	85
6422531	95	82	87
6422532	95	83	85
6422533	92	82	98
6422534	90	82	95
6422535	90	80	89
6422536	97	79	95
6422537	96	76	108
6422538	81	74	89
6422539	88	79	84
6422540	94	78	83
6422541	95	79	81
6422545	95	80	100
6422546	88	80	98
Blank	87	81	86
LCS	94	80	87
MS	94	78	83
MSD	95	79	81

Limits: 40-130 45-130 45-135

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11283SLA026

Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6422522	83	86	89	82	89
6422523	91	93	95	87	91
6422524	87	89	98	83	88
6422526	90	91	100	82	89
6422527	91	92	93	82	90
6422529	84	87	82	82	88
6422530	88	91	97	84	89
6422531	88	89	97	84	90
6422532	87	87	90	81	88
6422533	82	82	94	75	81
6422534	86	89	92	80	85
6422535	88	89	102	82	89
6422536	88	90	95	80	85
6422537	88	89	99	81	87
6422538	85	86	94	78	83
6422539	87	88	88	80	83
6422540	88	91	98	83	85
6422541	91	92	101	85	89
6422545	90	92	96	83	87
6422546	88	86	92	82	86
Blank	89	93	101	87	92
LCS	90	94	102	86	91
MS	88	91	98	83	85
MSD	91	92	101	85	89

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

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11274A34A

Trifluorotoluene-F

6422522	82
6422523	88

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Surrogate Quality Control

6422524 87
6422525 86
6422526 88
6422527 83
Blank 96
LCS 92
MS 96
MSD 98

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11279A20A
Trifluorotoluene-F

6422528 86
Blank 87
LCS 111
LCSD 113

Limits: 63-135

Analysis Name: 13b Herbicides by EPA 8151
Batch number: 112720023A
2,4-Dichlorophenylacetic
acid

6422547 87
Blank 71
LCS 101
LCSD 95

Limits: 35-144

Analysis Name: 20a Formaldehyde 8315A
Batch number: 112740006A
Butyraldehyde

6422522 91
6422523 85
6422524 92
6422526 98
6422527 98
Blank 89
LCS 92
MS 96
MSD 94

Limits: 64-126

Analysis Name: 8b PCBs/PCTs by 8082
Batch number: 112740023A
Tetrachloro-m-xylene Decachlorobiphenyl

6422547 112 89
Blank 110 105
LCS 113 94

*- 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: 11/03/11 at 02:54 PM

Group Number: 1268901

Surrogate Quality Control

LCSD	106	107
Limits:	30-150	45-120
Analysis Name: 12b Pesticides by 8081A		
Batch number: 112740024A		
	Tetrachloro-m-xylene	Decachlorobiphenyl
6422547	108	82
Blank	101	93
LCS	104	97
LCSD	105	71
Limits:	52-141	40-144
Analysis Name: 13a Herbicides by EPA 8151		
Batch number: 112790018A		
	2,4-Dichlorophenylacetic acid	
6422529	74	
6422530	84	
6422531	78	
6422532	100	
6422533	62	
6422534	93	
6422535	81	
6422536	48	
6422537	63	
6422538	85	
6422539	111	
6422540	73	
6422541	70	
6422543	95	
6422544	98	
6422545	89	
6422546	96	
Blank	102	
LCS	92	
MS	73	
MSD	70	
Limits:	36-156	
Analysis Name: 12a Pesticides by 8081A		
Batch number: 112800017A		
	Tetrachloro-m-xylene	Decachlorobiphenyl
6422529	62	127*
6422530	64	101
6422531	69	93
6422532	75	97
6422533	64	92
6422534	73	85
6422535	79	89
6422536	98	93
6422537	45*	81

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Surrogate Quality Control

6422538	51	85
6422539	66	97
6422540	72	97
6422541	65	98
6422543	53	105
6422544	67	93
6422545	62	109
6422546	54	99
Blank	69	125*
LCS	78	121*
MS	72	97
MSD	65	98

Limits: 50-130 20-120

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 112800018A

Tetrachloro-m-xylene Decachlorobiphenyl

6422522	97	81
6422523	176*	149*
6422524	144*	136*
6422526	143*	124*
6422527	117	97
6422529	117	114
6422530	110	111
6422531	136	137
6422532	119	120
6422533	135	141
6422534	117	116
6422535	128	137*
6422536	127	127*
6422537	98	122*
6422538	126	132*
6422539	134	148*
6422540	115	118
6422541	128	134
6422543	155*	171*
6422544	131	152*
6422545	112	117
6422546	107	116
Blank	120	148*
LCS	118	135*
LCSD	118	142*
MS	115	118
MSD	128	134

Limits: 53-139 45-120

Analysis Name: 18a Alcohols by 8015B

Batch number: 112730032A

Acetone

6422522	85
6422523	93
6422524	87
6422526	88
6422527	87

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/03/11 at 02:54 PM

Group Number: 1268901

Surrogate Quality Control

Blank 98
LCS 99
MS 87
MSD 64

Limits: 42-138

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel

Batch number: 112790036A

	Chlorobenzene	Orthoterphenyl
6422522	82	88
6422523	90	103
6422524	81	87
6422526	84	90
6422527	90	101
Blank	84	90
LCS	87	93
MS	90	92
MSD	86	93

Limits: 37-125 47-145

Analysis Name: 22a Terphenyls by 8015B

Batch number: 112790037A

n-Triacontane-d62

6422522	66
6422523	58
6422524	62
6422526	70
6422527	69
Blank	68
LCS	67
MS	68
MSD	69

Limits: 19-152

Analysis Name: 19a Glycols by 8015B

Batch number: 112790048A

Tetramethylene glycol

6422522	73
6422523	73
6422524	73
6422526	72
6422527	73
Blank	83
LCS	84
MS	74
MSD	73

Limits: 29-137

*- Outside of specification

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

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

acct# 13013 Cyp# 1268901 sample# 6402500-47

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS										VOCs		SECONDARY FOR ALL LOCATIONS														
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																	Other Instructions and Notes Revised COC																
Samplers Signatures:																																	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8209/8474/1A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCPs EPA 8062	*Dioxin/Furan EPA 1613B	*Pesticides EPA 314.0	*Hex. Chroma EPA 7199	*pH EPA 8045C/9040B	*Pesticides Confirmation by EPA 8850 (10%)	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NMA EPA 1625C	**Emergents EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Dioxins EPA 8270						
SL-103-SA7-SB-18.5	9/28/11	1440	SOIL	NONE	2-Encores												X																
SL-103-SA7-SB-18.0-19.0	9/28/11	1430	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X	X				X	X	X	X			X	X	X	X						
SL-106-SA7-SB-4.5	9/28/11	1210	SOIL	NONE	2-Encores												X																
SL-106-SA7-SB-4.0-5.0	9/28/11	1215	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X						
SL-106-SA7-SB-9.5	9/28/11	1223	SOIL	NONE	2-Encores												X																
SL-106-SA7-SB-9.0-10.0	9/28/11	1230	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X						
SL-106-SA7-SB-15.5	9/28/11	0933	SOIL	NONE	5-Encores										X	X	X																
SL-106-SA7-SB-17.0	9/28/11	1240	SOIL	NONE	2-Encores												X																
SL-106-SA7-SB-16.5-17.5	9/28/11	1245	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X	use moisture for Encores from 15.5 ft					
SL-106-SA7-SB-19.5	9/28/11	0945	SOIL	NONE	2-Encores												X																
SL-106-SA7-SB-19.0-20.0	9/28/11	0950	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X			X	X	X	X						
TB-092711	9/28/11	1430	WATER	NONE	4-40mL vials										X	X	X																
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)														Laboratory:																
	09/28/2011 / 1630																Lancaster Laboratories, Inc.																
Received by: (Signature)	Date/Time		Airbill No.(s)																														
			8767 9858 3494; 8767 9858 3509 8767 9858 3510																														

acct# 13013 Cup# 1268901 sample# 6422522-47

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes Revised COC
NOTES: *Primary Analyses as indicated on sample labels *Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																		
Samplers Signatures:																		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8270/8471/1	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chloride EPA 7199	*pH EPA 9045C/9040B	*Perchlorate Confirmation by EPA 8850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
SL-007-SA5DS-SS-0.0-0.5	9/28/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-007-SA5DS-SS-0.0-0.5	9/28/11	0800	SOIL	NONE	1-SS Sleeve			X	X									
SL-008-SA5DS-SS-0.0-0.5	9/28/11	0730	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-008-SA5DS-SS-0.0-0.5	9/28/11	0730	SOIL	NONE	1-SS Sleeve			X	X									
SL-009-SA5DS-SS-0.0-0.5	9/28/11	0950	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-009-SA5DS-SS-0.0-0.5	9/28/11	0950	SOIL	NONE	1-SS Sleeve			X	X									
SL-010-SA5DS-SS-0.0-0.5	9/28/11	0820	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-010-SA5DS-SS-0.0-0.5	9/28/11	0820	SOIL	NONE	1-SS Sleeve			X	X									
SL-013-SA5DS-SS-0.0-0.5	9/28/11	1100	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-013-SA5DS-SS-0.0-0.5	9/28/11	1100	SOIL	NONE	1-SS Sleeve			X	X									
SL-014-SA5DS-SS-0.0-0.5	9/28/11	1005	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-014-SA5DS-SS-0.0-0.5	9/28/11	1005	SOIL	NONE	1-SS Sleeve			X	X									
SL-015-SA5DS-SS-0.0-0.5	9/28/11	1045	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-015-SA5DS-SS-0.0-0.5	9/28/11	1045	SOIL	NONE	1-SS Sleeve			X	X									
SL-016-SA5DS-SS-0.0-0.5	9/28/11	0915	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-016-SA5DS-SS-0.0-0.5	9/28/11	0915	SOIL	NONE	1-SS Sleeve			X	X									
SL-017-SA5DS-SS-0.0-0.5	9/28/11	0835	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-017-SA5DS-SS-0.0-0.5	9/28/11	0835	SOIL	NONE	1-SS Sleeve			X	X									
SL-033-SA5DS-SS-0.0-0.5	9/28/11	1325	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-033-SA5DS-SS-0.0-0.5	9/28/11	1325	SOIL	NONE	1-SS Sleeve			X	X									
SL-034-SA5DS-SS-0.0-0.5MS	9/28/11	1345	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X		
SL-034-SA5DS-SS-0.0-0.5MS	9/28/11	1345	SOIL	NONE	1-SS Sleeve			X	X									
SL-040-SA5DS-SS-0.0-0.5	9/28/11	1505	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-040-SA5DS-SS-0.0-0.5	9/28/11	1505	SOIL	NONE	1-SS Sleeve			X	X									
DUP-02-SA5DS-QC-092811	9/28/11	1355	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
DUP-02-SA5DS-QC-092811	9/28/11	1355	SOIL	NONE	1-SS Sleeve			X	X									
Relinquished by: (Signature)		Date/Time 09/28/2011 / 1630		Received for Laboratory by: (Signature)												Laboratory: Lancaster Laboratories, Inc.		
Received by: (Signature)		Date/Time		Airbill No(s) 8767 9858 3494; 8767 9858 3509 8767 9858 3510														

acct #13013 Cp #1268901

Sample # 6422522-47

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) and Subarea 5 (SA7), report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>V. J. Carter</i>																			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
EB-SA5DS-SS-092811	09.28.11	1300	WATER	NONE	7-1 liter ambers				X	X	X						X		
EB-SA5DS-SS-092811	09.28.11	1300	WATER	NONE	1-500 mL poly		X					X	X	X					
EB-SA5DS-SS-092811	09.28.11	1300	WATER	HNO3	1-500 mL poly	X													
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)															
<i>[Signature]</i>		09/28/2011 / 1630		<i>[Signature]</i> LI 9129/11 0905															
Received by: (Signature)		Date/Time		Airbill No.(s)															
				8767 9858 3494; 8767 9858 3509 8767 9858 3510; 8767 9858 3520															
Laboratory: Lancaster Laboratories, Inc.																			

acc# 13013 Cp# 1268901

sample# 6422522-47

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										VOCs		SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 5 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 8010/8200B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PC's EPA 8082	*Dioxin/Furan EPA 1613B	*Pesticides EPA 314.0	*Hex. Chroma EPA 7199	*pH EPA 9045C/9040B	*Perchlorate Confirmation by EPA 8080 (10%)	VOCs/EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrate EPA 300.0	**Formaldehyde EPA 8315A	**NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Donor EPA 8270	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																							
SL-103-SA7-SB-18.5	9/28/11	1440	SOIL	NONE	2-Encores											X												
SL-103-SA7-SB-18.0-19.0	9/28/11	1430	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X		
SL-106-SA7-SB-4.5	9/28/11	1210	SOIL	NONE	2-Encores											X												
SL-106-SA7-SB-4.0-5.0	9/28/11	1215	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X		
SL-106-SA7-SB-9.5	9/28/11	1223	SOIL	NONE	2-Encores											X												
SL-106-SA7-SB-9.0-10.0	9/28/11	1230	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X		
SL-106-SA7-SB-15.5	9/28/11	0933	SOIL	NONE	5-Encores										X	X	X											
SL-106-SA7-SB-17.0	9/28/11	1240	SOIL	NONE	2-Encores											X												
SL-106-SA7-SB-16.5-17.5	9/28/11	1245	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X		
SL-106-SA7-SB-19.5	9/28/11	0945	SOIL	NONE	2-Encores											X												
SL-106-SA7-SB-19.0-20.0	9/28/11	0950	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X		
TB-092711	9/28/11	1430	WATER	NONE	4-40mL vials										X	X	X											
Relinquished by: (Signature)		Date/Time 9/28/2011 / 1630		Received for Laboratory by: (Signature)																						Laboratory: Lancaster Laboratories, Inc.		
Received by: (Signature)		Date/Time		Airbill No.(s)		8767 9858 3494; 8767 9858 3509 8767 9858 3510; [REDACTED]																						

acc#13013 Cup#1268901

sample#6423522-47

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 601/602/808/87471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 8045C/9040B	Perchlorate Confirmation by EPA 6650 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>Vidal</i>																			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-007-SA5DS-SS-0.0-0.5	9/28/11	0800	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-007-SA5DS-SS-0.0-0.5	9/28/11	0800	SOIL	NONE	1-SS Sleeve			X	X										
SL-008-SA5DS-SS-0.0-0.5	9/28/11	0730	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-008-SA5DS-SS-0.0-0.5	9/28/11	0730	SOIL	NONE	1-SS Sleeve			X	X										
SL-009-SA5DS-SS-0.0-0.5	9/28/11	0950	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-009-SA5DS-SS-0.0-0.5	9/28/11	0950	SOIL	NONE	1-SS Sleeve			X	X										
SL-010-SA5DS-SS-0.0-0.5	9/28/11	0820	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-010-SA5DS-SS-0.0-0.5	9/28/11	0820	SOIL	NONE	1-SS Sleeve			X	X										
SL-013-SA5DS-SS-0.0-0.5	9/28/11	1100	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-013-SA5DS-SS-0.0-0.5	9/28/11	1100	SOIL	NONE	1-SS Sleeve			X	X										
SL-014-SA5DS-SS-0.0-0.5	9/28/11	1005	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-014-SA5DS-SS-0.0-0.5	9/28/11	1005	SOIL	NONE	1-SS Sleeve			X	X										
SL-015-SA5DS-SS-0.0-0.5	9/28/11	1045	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-015-SA5DS-SS-0.0-0.5	9/28/11	1045	SOIL	NONE	1-SS Sleeve			X	X										
SL-016-SA5DS-SS-0.0-0.5	9/28/11	0915	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-016-SA5DS-SS-0.0-0.5	9/28/11	0915	SOIL	NONE	1-SS Sleeve			X	X										
SL-017-SA5DS-SS-0.0-0.5	9/28/11	0835	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-017-SA5DS-SS-0.0-0.5	9/28/11	0835	SOIL	NONE	1-SS Sleeve			X	X										
SL-033-SA5DS-SS-0.0-0.5	9/28/11	1325	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-033-SA5DS-SS-0.0-0.5	9/28/11	1325	SOIL	NONE	1-SS Sleeve			X	X										
SL-034-SA5DS-SS-0.0-0.5MS	9/28/11	1345	SOIL	NONE	2-16 oz Jars	X	X					X	X	X	X		X	X	
SL-034-SA5DS-SS-0.0-0.5MS	9/28/11	1345	SOIL	NONE	1-SS Sleeve			X	X										
SL-040-SA5DS-SS-0.0-0.5	9/28/11	1505	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
SL-040-SA5DS-SS-0.0-0.5	9/28/11	1505	SOIL	NONE	1-SS Sleeve			X	X										
DUP-02-SA5DS-QC-092811	9/28/11	1355	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X		X	X	
DUP-02-SA5DS-QC-092811	9/28/11	1355	SOIL	NONE	1-SS Sleeve			X	X										
Released by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		300 12/2/11 9/28/11 - 1100 - 0705										Laboratory:		Lancaster Laboratories, Inc.	
<i>[Signature]</i> 09/28/2011 / 1630		09/28/2011 / 1630		<i>[Signature]</i> LLI															
Received by: (Signature)		Date/Time		Air Mail No. (s)		8767 9858 3494; 8767 9858 3509 8767 9858 3510;													

Explanation of Symbols and Abbreviations

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

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 19, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/29/2011

Group Number: 1268919

SDG: DX144

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-103-SA7-SB-18.0-19.0 Soil	6422590
SL-106-SA7-SB-4.0-5.0 Soil	6422591
SL-106-SA7-SB-9.0-10.0 Soil	6422592
SL-106-SA7-SB-16.5-17.5 Soil	6422593
SL-106-SA7-SB-19.0-20.0 Soil	6422594
SL-007-SA5DS-SS-0.0-0.5 Soil	6422595
SL-008-SA5DS-SS-0.0-0.5 Soil	6422596
SL-009-SA5DS-SS-0.0-0.5 Soil	6422597
SL-010-SA5DS-SS-0.0-0.5 Soil	6422598
SL-013-SA5DS-SS-0.0-0.5 Soil	6422599
SL-014-SA5DS-SS-0.0-0.5 Soil	6422600
SL-015-SA5DS-SS-0.0-0.5 Soil	6422601
SL-016-SA5DS-SS-0.0-0.5 Soil	6422602
SL-017-SA5DS-SS-0.0-0.5 Soil	6422603
SL-033-SA5DS-SS-0.0-0.5 Soil	6422604

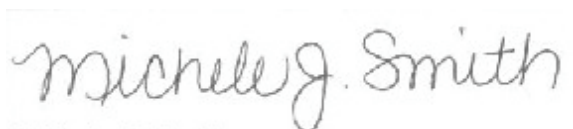
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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

Attn: Todd Burgess

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

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

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Page 1 of 4

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422590
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4406 SDG#: DX144-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	9.0	0.50	0.50	1

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

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422590
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4406 SDG#: DX144-06

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	0.0433 U	0.0433	1.08	1
11031	12378-PeCDD	40321-76-4	0.128 J	0.0418	5.42	1
11031	123478-HxCDD	39227-28-6	0.126 JQ	0.0503	5.42	1
11031	123678-HxCDD	57653-85-7	0.298 JB	0.0473	5.42	1
11031	123789-HxCDD	19408-74-3	0.226 JQ	0.0489	5.42	1
11031	1234678-HpCDD	35822-46-9	16.5 B	0.0874	5.42	1
11031	OCDD	3268-87-9	129 B	0.0875	10.8	1
11031	2378-TCDF	51207-31-9	0.0514 JQ	0.0469	1.08	1
11031	12378-PeCDF	57117-41-6	0.238 JBQ	0.0249	5.42	1
11031	23478-PeCDF	57117-31-4	0.249 JB	0.0241	5.42	1
11031	123478-HxCDF	70648-26-9	0.192 JBQ	0.0332	5.42	1
11031	123678-HxCDF	57117-44-9	0.118 JB	0.0320	5.42	1
11031	123789-HxCDF	72918-21-9	0.268 J	0.0375	5.42	1
11031	234678-HxCDF	60851-34-5	0.0931 JQ	0.0335	5.42	1
11031	1234678-HpCDF	67562-39-4	0.563 JBQ	0.0274	5.42	1
11031	1234789-HpCDF	55673-89-7	0.0926 JB	0.0391	5.42	1
11031	OCDF	39001-02-0	1.54 JB	0.0581	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	90	25 - 164
13C12-12378-PeCDD	90	25 - 181
13C12-123478-HxCDD	92	32 - 141
13C12-123678-HxCDD	102	28 - 130
13C12-123789-HxCDD	97	28 - 130
13C12-1234678-HpCDD	97	23 - 140
13C12-OCDD	100	17 - 157
13C12-2378-TCDF	87	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	89	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	84	26 - 138
13C12-OCDF	84	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422590
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4406 SDG#: DX144-06

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



Analysis Report

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Sample Description: SL-103-SA7-SB-18.0-19.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA7-SB-18.0-19.0

LLI Sample # SW 6422590
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 14:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4406 SDG#: DX144-06

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/10/2011 22:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422591
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4407 SDG#: DX144-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	3.6	0.50	0.50	1

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

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422591
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4407 SDG#: DX144-07

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	0.0960 JQ	0.0426	1.02	1
11031	12378-PeCDD	40321-76-4	0.231 JQ	0.0423	5.12	1
11031	123478-HxCDD	39227-28-6	0.175 JQ	0.0497	5.12	1
11031	123678-HxCDD	57653-85-7	0.417 JB	0.0489	5.12	1
11031	123789-HxCDD	19408-74-3	0.239 JQ	0.0493	5.12	1
11031	1234678-HpCDD	35822-46-9	13.0 B	0.0897	5.12	1
11031	OCDD	3268-87-9	168 B	0.0854	10.2	1
11031	2378-TCDF	51207-31-9	0.0494 JQ	0.0422	1.02	1
11031	12378-PeCDF	57117-41-6	0.212 JB	0.0275	5.12	1
11031	23478-PeCDF	57117-31-4	0.289 JB	0.0265	5.12	1
11031	123478-HxCDF	70648-26-9	0.328 JB	0.0442	5.12	1
11031	123678-HxCDF	57117-44-9	0.153 JB	0.0418	5.12	1
11031	123789-HxCDF	72918-21-9	0.151 JQ	0.0468	5.12	1
11031	234678-HxCDF	60851-34-5	0.177 JQ	0.0409	5.12	1
11031	1234678-HpCDF	67562-39-4	1.98 JB	0.0342	5.12	1
11031	1234789-HpCDF	55673-89-7	0.222 JBQ	0.0497	5.12	1
11031	OCDF	39001-02-0	4.55 JB	0.0566	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Page 3 of 4

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422591
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4407 SDG#: DX144-07

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

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



Analysis Report

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Page 4 of 4

Sample Description: SL-106-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-4.0-5.0

LLI Sample # SW 6422591
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4407 SDG#: DX144-07

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 02:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422592
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4408 SDG#: DX144-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	7.6	0.50	0.50	1

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

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422592
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4408 SDG#: DX144-08

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	0.0458 U	0.0458	1.05	1
11031	12378-PeCDD	40321-76-4	0.102 JQ	0.0393	5.25	1
11031	123478-HxCDD	39227-28-6	0.0393 U	0.0393	5.25	1
11031	123678-HxCDD	57653-85-7	0.176 JBQ	0.0377	5.25	1
11031	123789-HxCDD	19408-74-3	0.0825 J	0.0361	5.25	1
11031	1234678-HpCDD	35822-46-9	2.54 JB	0.0508	5.25	1
11031	OCDD	3268-87-9	26.3 B	0.0440	10.5	1
11031	2378-TCDF	51207-31-9	0.0513 JQ	0.0386	1.05	1
11031	12378-PeCDF	57117-41-6	0.210 JBQ	0.0255	5.25	1
11031	23478-PeCDF	57117-31-4	0.212 JBQ	0.0250	5.25	1
11031	123478-HxCDF	70648-26-9	0.137 JBQ	0.0285	5.25	1
11031	123678-HxCDF	57117-44-9	0.0967 JB	0.0258	5.25	1
11031	123789-HxCDF	72918-21-9	0.0887 J	0.0299	5.25	1
11031	234678-HxCDF	60851-34-5	0.0546 JQ	0.0274	5.25	1
11031	1234678-HpCDF	67562-39-4	0.330 JBQ	0.0197	5.25	1
11031	1234789-HpCDF	55673-89-7	0.0657 JBQ	0.0307	5.25	1
11031	OCDF	39001-02-0	0.884 JB	0.0550	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422592
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4408 SDG#: DX144-08

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

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



Analysis Report

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Page 4 of 4

Sample Description: SL-106-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-9.0-10.0

LLI Sample # SW 6422592
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4408 SDG#: DX144-08

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 03:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422593
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4409 SDG#: DX144-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	7.5	0.50	0.50	1

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

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422593
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4409 SDG#: DX144-09

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	0.0488 JQ	0.0409	1.05	1
11031	12378-PeCDD	40321-76-4	0.105 J	0.0379	5.25	1
11031	123478-HxCDD	39227-28-6	0.0462 U	0.0462	5.25	1
11031	123678-HxCDD	57653-85-7	0.373 JB	0.0461	5.25	1
11031	123789-HxCDD	19408-74-3	0.339 JQ	0.0476	5.25	1
11031	1234678-HpCDD	35822-46-9	24.7 B	0.0945	5.25	1
11031	OCDD	3268-87-9	287 B	0.110	10.5	1
11031	2378-TCDF	51207-31-9	0.0425 J	0.0342	1.05	1
11031	12378-PeCDF	57117-41-6	0.111 JBQ	0.0222	5.25	1
11031	23478-PeCDF	57117-31-4	0.129 JBQ	0.0198	5.25	1
11031	123478-HxCDF	70648-26-9	0.0716 JB	0.0285	5.25	1
11031	123678-HxCDF	57117-44-9	0.0735 JBQ	0.0268	5.25	1
11031	123789-HxCDF	72918-21-9	0.152 JQ	0.0298	5.25	1
11031	234678-HxCDF	60851-34-5	0.0641 JQ	0.0275	5.25	1
11031	1234678-HpCDF	67562-39-4	0.728 JB	0.0345	5.25	1
11031	1234789-HpCDF	55673-89-7	0.0678 JB	0.0450	5.25	1
11031	OCDF	39001-02-0	2.31 JB	0.0552	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
 SSFL Area IV Collocated Soil Sampling
 SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422593
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4409 SDG#: DX144-09

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



Analysis Report

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Page 4 of 4

Sample Description: SL-106-SA7-SB-16.5-17.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-16.5-17.5

LLI Sample # SW 6422593
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 12:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4409 SDG#: DX144-09

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 04:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422594
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4410 SDG#: DX144-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

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

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422594
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4410 SDG#: DX144-10

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	0.0426 U	0.0426	1.06	1
11031	12378-PeCDD	40321-76-4	0.0591 JQ	0.0378	5.30	1
11031	123478-HxCDD	39227-28-6	0.0687 JQ	0.0463	5.30	1
11031	123678-HxCDD	57653-85-7	0.338 JB	0.0429	5.30	1
11031	123789-HxCDD	19408-74-3	0.230 J	0.0401	5.30	1
11031	1234678-HpCDD	35822-46-9	10.7 B	0.0713	5.30	1
11031	OCDD	3268-87-9	125 B	0.0810	10.6	1
11031	2378-TCDF	51207-31-9	0.0363 U	0.0363	1.06	1
11031	12378-PeCDF	57117-41-6	0.0217 U	0.0217	5.30	1
11031	23478-PeCDF	57117-31-4	0.0762 JBQ	0.0204	5.30	1
11031	123478-HxCDF	70648-26-9	0.174 JB	0.0354	5.30	1
11031	123678-HxCDF	57117-44-9	0.0489 JBQ	0.0313	5.30	1
11031	123789-HxCDF	72918-21-9	0.113 JQ	0.0313	5.30	1
11031	234678-HxCDF	60851-34-5	0.0862 J	0.0289	5.30	1
11031	1234678-HpCDF	67562-39-4	1.14 JB	0.0308	5.30	1
11031	1234789-HpCDF	55673-89-7	0.154 JB	0.0421	5.30	1
11031	OCDF	39001-02-0	2.61 JB	0.0431	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422594
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4410 SDG#: DX144-10

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

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



Analysis Report

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

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Sample Description: SL-106-SA7-SB-19.0-20.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA7-SB-19.0-20.0

LLI Sample # SW 6422594
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4410 SDG#: DX144-10

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 05:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422595
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4411 SDG#: DX144-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.5	0.50	0.50	1

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

Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422595
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4411 SDG#: DX144-11

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	0.0642 U	0.0642	0.993	1
11031	12378-PeCDD	40321-76-4	0.136 JQ	0.0509	4.97	1
11031	123478-HxCDD	39227-28-6	0.0534 U	0.0534	4.97	1
11031	123678-HxCDD	57653-85-7	0.934 JB	0.0511	4.97	1
11031	123789-HxCDD	19408-74-3	1.23 J	0.0514	4.97	1
11031	1234678-HpCDD	35822-46-9	3.83 JB	0.0521	4.97	1
11031	OCDD	3268-87-9	44.9 B	0.0676	9.93	1
11031	2378-TCDF	51207-31-9	0.121 JQ	0.0714	0.993	1
11031	12378-PeCDF	57117-41-6	0.119 JBQ	0.0412	4.97	1
11031	23478-PeCDF	57117-31-4	0.291 JBQ	0.0395	4.97	1
11031	123478-HxCDF	70648-26-9	0.128 JBQ	0.0399	4.97	1
11031	123678-HxCDF	57117-44-9	0.146 JBQ	0.0357	4.97	1
11031	123789-HxCDF	72918-21-9	0.671 J	0.0441	4.97	1
11031	234678-HxCDF	60851-34-5	0.180 JQ	0.0371	4.97	1
11031	1234678-HpCDF	67562-39-4	0.809 JB	0.0219	4.97	1
11031	1234789-HpCDF	55673-89-7	0.0546 JBQ	0.0328	4.97	1
11031	OCDF	39001-02-0	2.20 JB	0.0652	9.93	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	62	25 - 181
13C12-123478-HxCDD	65	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	61	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	59	26 - 123
13C12-234678-HxCDF	58	28 - 136
13C12-123789-HxCDF	59	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422595
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4411 SDG#: DX144-11

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



Analysis Report

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Page 4 of 4

Sample Description: SL-007-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422595
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4411 SDG#: DX144-11

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 06:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422596
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4412 SDG#: DX144-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.9	0.50	0.50	1

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

Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422596
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4412 SDG#: DX144-12

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	0.0433 J	0.0428	0.980	1
11031	12378-PeCDD	40321-76-4	0.0916 JQ	0.0428	4.90	1
11031	123478-HxCDD	39227-28-6	0.102 J	0.0438	4.90	1
11031	123678-HxCDD	57653-85-7	0.416 JB	0.0407	4.90	1
11031	123789-HxCDD	19408-74-3	0.509 JQ	0.0384	4.90	1
11031	1234678-HpCDD	35822-46-9	3.58 JB	0.0493	4.90	1
11031	OCDD	3268-87-9	38.8 B	0.0552	9.80	1
11031	2378-TCDF	51207-31-9	0.137 J	0.0654	0.980	1
11031	12378-PeCDF	57117-41-6	0.130 JB	0.0369	4.90	1
11031	23478-PeCDF	57117-31-4	0.115 JBQ	0.0361	4.90	1
11031	123478-HxCDF	70648-26-9	0.221 JB	0.0357	4.90	1
11031	123678-HxCDF	57117-44-9	0.133 JBQ	0.0317	4.90	1
11031	123789-HxCDF	72918-21-9	0.228 JQ	0.0373	4.90	1
11031	234678-HxCDF	60851-34-5	0.194 JQ	0.0330	4.90	1
11031	1234678-HpCDF	67562-39-4	0.676 JB	0.0202	4.90	1
11031	1234789-HpCDF	55673-89-7	0.0527 JBQ	0.0315	4.90	1
11031	OCDF	39001-02-0	1.53 JB	0.0582	9.80	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	89	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422596
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4412 SDG#: DX144-12

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

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

Sample Description: SL-008-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422596
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 07:30

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4412 SDG#: DX144-12

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 07:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422597
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4413 SDG#: DX144-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.5	0.50	0.50	1

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

Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422597
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4413 SDG#: DX144-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0460 U	0.0460	1.01	1
11031	12378-PeCDD	40321-76-4	0.142 JQ	0.0414	5.05	1
11031	123478-HxCDD	39227-28-6	0.0814 JQ	0.0445	5.05	1
11031	123678-HxCDD	57653-85-7	0.571 JB	0.0430	5.05	1
11031	123789-HxCDD	19408-74-3	0.746 J	0.0424	5.05	1
11031	1234678-HpCDD	35822-46-9	4.23 JB	0.0456	5.05	1
11031	OCDD	3268-87-9	45.4 B	0.0496	10.1	1
11031	2378-TCDF	51207-31-9	0.196 JQ	0.0539	1.01	1
11031	12378-PeCDF	57117-41-6	0.183 JBQ	0.0303	5.05	1
11031	23478-PeCDF	57117-31-4	0.0287 U	0.0287	5.05	1
11031	123478-HxCDF	70648-26-9	0.0575 JBQ	0.0355	5.05	1
11031	123678-HxCDF	57117-44-9	0.174 JB	0.0323	5.05	1
11031	123789-HxCDF	72918-21-9	0.483 J	0.0377	5.05	1
11031	234678-HxCDF	60851-34-5	0.202 JQ	0.0339	5.05	1
11031	1234678-HpCDF	67562-39-4	0.958 JB	0.0255	5.05	1
11031	1234789-HpCDF	55673-89-7	0.0653 JBQ	0.0380	5.05	1
11031	OCDF	39001-02-0	2.43 JB	0.0519	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422597
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4413 SDG#: DX144-13

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



Analysis Report

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Page 4 of 4

Sample Description: SL-009-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422597
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:50

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4413 SDG#: DX144-13

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 08:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402A	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422598
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4414 SDG#: DX144-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.4	0.50	0.50	1

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

Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422598
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4414 SDG#: DX144-14

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	0.0545 JQ	0.0437	1.00	1
11031	12378-PeCDD	40321-76-4	0.186 JQ	0.0456	5.02	1
11031	123478-HxCDD	39227-28-6	0.102 JQ	0.0469	5.02	1
11031	123678-HxCDD	57653-85-7	0.994 JB	0.0453	5.02	1
11031	123789-HxCDD	19408-74-3	1.32 J	0.0399	5.02	1
11031	1234678-HpCDD	35822-46-9	4.60 JB	0.0528	5.02	1
11031	OCDD	3268-87-9	52.9 B	0.0625	10.0	1
11031	2378-TCDF	51207-31-9	0.226 JQ	0.0647	1.00	1
11031	12378-PeCDF	57117-41-6	0.333 JBQ	0.0358	5.02	1
11031	23478-PeCDF	57117-31-4	0.260 JBQ	0.0348	5.02	1
11031	123478-HxCDF	70648-26-9	0.323 JBQ	0.0368	5.02	1
11031	123678-HxCDF	57117-44-9	0.198 JBQ	0.0318	5.02	1
11031	123789-HxCDF	72918-21-9	0.825 J	0.0349	5.02	1
11031	234678-HxCDF	60851-34-5	0.215 J	0.0319	5.02	1
11031	1234678-HpCDF	67562-39-4	0.834 JB	0.0253	5.02	1
11031	1234789-HpCDF	55673-89-7	0.145 JBQ	0.0397	5.02	1
11031	OCDF	39001-02-0	1.93 JB	0.0543	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422598
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4414 SDG#: DX144-14

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



Analysis Report

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Sample Description: SL-010-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422598
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:20

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4414 SDG#: DX144-14

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 09:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422599
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4415 SDG#: DX144-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1

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

Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422599
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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Chantilly VA 20151

X4415 SDG#: DX144-15

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	0.0502 U	0.0502	1.00	1
11031	12378-PeCDD	40321-76-4	0.195 J	0.0480	5.02	1
11031	123478-HxCDD	39227-28-6	0.0821 JQ	0.0470	5.02	1
11031	123678-HxCDD	57653-85-7	0.632 JB	0.0438	5.02	1
11031	123789-HxCDD	19408-74-3	0.822 JQ	0.0403	5.02	1
11031	1234678-HpCDD	35822-46-9	1.78 JB	0.0517	5.02	1
11031	OCDD	3268-87-9	19.6 B	0.0509	10.0	1
11031	2378-TCDF	51207-31-9	0.0930 JQ	0.0472	1.00	1
11031	12378-PeCDF	57117-41-6	0.306 JBQ	0.0296	5.02	1
11031	23478-PeCDF	57117-31-4	0.290 JB	0.0290	5.02	1
11031	123478-HxCDF	70648-26-9	0.123 JB	0.0336	5.02	1
11031	123678-HxCDF	57117-44-9	0.162 JBQ	0.0284	5.02	1
11031	123789-HxCDF	72918-21-9	0.316 J	0.0352	5.02	1
11031	234678-HxCDF	60851-34-5	0.0908 J	0.0297	5.02	1
11031	1234678-HpCDF	67562-39-4	0.297 JB	0.0199	5.02	1
11031	1234789-HpCDF	55673-89-7	0.0580 JBQ	0.0351	5.02	1
11031	OCDF	39001-02-0	0.890 JBQ	0.0746	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	97	28 - 130
13C12-123789-HxCDD	99	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	84	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422599
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

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Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4415 SDG#: DX144-15

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



Analysis Report

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Sample Description: SL-013-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422599
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 11:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4415 SDG#: DX144-15

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 10:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422600
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

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Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4416 SDG#: DX144-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.5	0.50	0.50	1

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

Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422600
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

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Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4416 SDG#: DX144-16

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	0.0416 U	0.0416	0.967	1
11031	12378-PeCDD	40321-76-4	0.234 J	0.0432	4.83	1
11031	123478-HxCDD	39227-28-6	0.0886 JQ	0.0475	4.83	1
11031	123678-HxCDD	57653-85-7	0.994 JB	0.0463	4.83	1
11031	123789-HxCDD	19408-74-3	0.984 J	0.0435	4.83	1
11031	1234678-HpCDD	35822-46-9	6.74 B	0.0669	4.83	1
11031	OCDD	3268-87-9	146 B	0.0778	9.67	1
11031	2378-TCDF	51207-31-9	0.162 JQ	0.0572	0.967	1
11031	12378-PeCDF	57117-41-6	0.294 JB	0.0309	4.83	1
11031	23478-PeCDF	57117-31-4	0.431 JB	0.0306	4.83	1
11031	123478-HxCDF	70648-26-9	0.283 JBQ	0.0438	4.83	1
11031	123678-HxCDF	57117-44-9	0.215 JB	0.0369	4.83	1
11031	123789-HxCDF	72918-21-9	0.507 J	0.0439	4.83	1
11031	234678-HxCDF	60851-34-5	0.205 JQ	0.0375	4.83	1
11031	1234678-HpCDF	67562-39-4	1.14 JB	0.0229	4.83	1
11031	1234789-HpCDF	55673-89-7	0.136 JB	0.0411	4.83	1
11031	OCDF	39001-02-0	2.71 JB	0.0560	9.67	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	93	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422600
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4416 SDG#: DX144-16

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

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

Sample Description: SL-014-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422600
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4416 SDG#: DX144-16

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 11:14	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1



Analysis Report

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Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422601
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4417 SDG#: DX144-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	2.6	0.50	0.50	1

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

Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422601
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4417 SDG#: DX144-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0444 U	0.0444	1.01	1
11031	12378-PeCDD	40321-76-4	0.170 J	0.0414	5.03	1
11031	123478-HxCDD	39227-28-6	0.127 JQ	0.0417	5.03	1
11031	123678-HxCDD	57653-85-7	0.514 JB	0.0409	5.03	1
11031	123789-HxCDD	19408-74-3	0.834 JQ	0.0395	5.03	1
11031	1234678-HpCDD	35822-46-9	2.73 JB	0.0416	5.03	1
11031	OCDD	3268-87-9	34.3 B	0.0374	10.1	1
11031	2378-TCDF	51207-31-9	0.0574 J	0.0512	1.01	1
11031	12378-PeCDF	57117-41-6	0.188 JB	0.0262	5.03	1
11031	23478-PeCDF	57117-31-4	0.189 JB	0.0259	5.03	1
11031	123478-HxCDF	70648-26-9	0.0299 U	0.0299	5.03	1
11031	123678-HxCDF	57117-44-9	0.100 JB	0.0258	5.03	1
11031	123789-HxCDF	72918-21-9	0.521 J	0.0294	5.03	1
11031	234678-HxCDF	60851-34-5	0.126 JQ	0.0269	5.03	1
11031	1234678-HpCDF	67562-39-4	0.557 JB	0.0153	5.03	1
11031	1234789-HpCDF	55673-89-7	0.0259 U	0.0259	5.03	1
11031	OCDF	39001-02-0	1.16 JBQ	0.0426	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	108	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	105	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

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



Analysis Report

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Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422601
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4417 SDG#: DX144-17

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

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



Analysis Report

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Sample Description: SL-015-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422601
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 10:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4417 SDG#: DX144-17

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 16:33	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422602
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4418 SDG#: DX144-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1

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

Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422602
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4418 SDG#: DX144-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0529 U	0.0529	1.03	1
11031	12378-PeCDD	40321-76-4	0.159 JQ	0.0431	5.17	1
11031	123478-HxCDD	39227-28-6	0.0651 JQ	0.0369	5.17	1
11031	123678-HxCDD	57653-85-7	0.584 JBQ	0.0365	5.17	1
11031	123789-HxCDD	19408-74-3	0.787 J	0.0335	5.17	1
11031	1234678-HpCDD	35822-46-9	3.72 JB	0.0466	5.17	1
11031	OCDD	3268-87-9	40.7 B	0.0366	10.3	1
11031	2378-TCDF	51207-31-9	0.132 JQ	0.0634	1.03	1
11031	12378-PeCDF	57117-41-6	0.165 JBQ	0.0290	5.17	1
11031	23478-PeCDF	57117-31-4	0.193 JB	0.0284	5.17	1
11031	123478-HxCDF	70648-26-9	0.258 JB	0.0318	5.17	1
11031	123678-HxCDF	57117-44-9	0.103 JB	0.0283	5.17	1
11031	123789-HxCDF	72918-21-9	0.565 J	0.0330	5.17	1
11031	234678-HxCDF	60851-34-5	0.148 JQ	0.0299	5.17	1
11031	1234678-HpCDF	67562-39-4	0.771 JB	0.0178	5.17	1
11031	1234789-HpCDF	55673-89-7	0.0631 JB	0.0277	5.17	1
11031	OCDF	39001-02-0	1.78 JB	0.0382	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	95	28 - 130
13C12-1234678-HpCDD	99	23 - 140
13C12-OCDD	106	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422602
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4418 SDG#: DX144-18

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



Analysis Report

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Sample Description: SL-016-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422602
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 09:15

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

Chantilly VA 20151

X4418 SDG#: DX144-18

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 17:29	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422603
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

Suite 210

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X4419 SDG#: DX144-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.7	0.50	0.50	1

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

Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422603
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4419 SDG#: DX144-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0586 J	0.0340	1.01	1
11031	12378-PeCDD	40321-76-4	0.208 J	0.0394	5.06	1
11031	123478-HxCDD	39227-28-6	0.136 J	0.0408	5.06	1
11031	123678-HxCDD	57653-85-7	1.02 JB	0.0411	5.06	1
11031	123789-HxCDD	19408-74-3	1.06 J	0.0361	5.06	1
11031	1234678-HpCDD	35822-46-9	7.14 B	0.0415	5.06	1
11031	OCDD	3268-87-9	71.4 B	0.0371	10.1	1
11031	2378-TCDF	51207-31-9	0.589 J	0.0962	1.01	1
11031	12378-PeCDF	57117-41-6	0.295 JB	0.0519	5.06	1
11031	23478-PeCDF	57117-31-4	1.11 JB	0.0512	5.06	1
11031	123478-HxCDF	70648-26-9	0.464 JB	0.0374	5.06	1
11031	123678-HxCDF	57117-44-9	0.278 JB	0.0340	5.06	1
11031	123789-HxCDF	72918-21-9	0.500 J	0.0363	5.06	1
11031	234678-HxCDF	60851-34-5	0.341 J	0.0336	5.06	1
11031	1234678-HpCDF	67562-39-4	1.42 JB	0.0180	5.06	1
11031	1234789-HpCDF	55673-89-7	0.121 JBQ	0.0274	5.06	1
11031	OCDF	39001-02-0	2.56 JB	0.0272	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	90	32 - 141
13C12-123678-HxCDD	91	28 - 130
13C12-123789-HxCDD	96	28 - 130
13C12-1234678-HpCDD	97	23 - 140
13C12-OCDD	102	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

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

Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422603
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4419 SDG#: DX144-19

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



Analysis Report

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Sample Description: SL-017-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422603
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 08:35

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/19/2011 22:51

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X4419 SDG#: DX144-19

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 18:26	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

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



Analysis Report

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Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422604
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4420 SDG#: DX144-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.5	0.50	0.50	1

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

Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422604
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4420 SDG#: DX144-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0436 U	0.0436	1.01	1
11031	12378-PeCDD	40321-76-4	0.0490 J	0.0299	5.04	1
11031	123478-HxCDD	39227-28-6	0.0425 JQ	0.0227	5.04	1
11031	123678-HxCDD	57653-85-7	0.0582 JB	0.0223	5.04	1
11031	123789-HxCDD	19408-74-3	0.127 JQ	0.0310	5.04	1
11031	1234678-HpCDD	35822-46-9	0.444 JBQ	0.0260	5.04	1
11031	OCDD	3268-87-9	2.21 JB	0.0176	10.1	1
11031	2378-TCDF	51207-31-9	0.0356 U	0.0356	1.01	1
11031	12378-PeCDF	57117-41-6	0.0223 JBQ	0.0197	5.04	1
11031	23478-PeCDF	57117-31-4	0.0414 JBQ	0.0187	5.04	1
11031	123478-HxCDF	70648-26-9	0.0353 JBQ	0.0139	5.04	1
11031	123678-HxCDF	57117-44-9	0.0256 JBQ	0.0127	5.04	1
11031	123789-HxCDF	72918-21-9	0.112 JQ	0.0381	5.04	1
11031	234678-HxCDF	60851-34-5	0.0401 J	0.0139	5.04	1
11031	1234678-HpCDF	67562-39-4	0.153 JB	0.0159	5.04	1
11031	1234789-HpCDF	55673-89-7	0.0478 JBQ	0.0231	5.04	1
11031	OCDF	39001-02-0	0.253 JB	0.0281	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	87	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	59	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	104	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	29	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422604
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4420 SDG#: DX144-20*

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



Analysis Report

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Sample Description: SL-033-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422604
LLI Group # 1268919
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:25

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/19/2011 22:51

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X4420 SDG#: DX144-20*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280001	10/11/2011 19:22	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280001	10/07/2011 09:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/19/11 at 10:51 PM

Group Number: 1268919

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11278162402A Moisture Content by 160.3	Sample number(s): 6422590-6422597				100		80-120		
Batch number: 11278162402B Moisture Content by 160.3	Sample number(s): 6422598-6422604				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11280001	Sample number(s): 6422590-6422604								
2378-TCDD	0.0692 U	0.0692	1.00	ng/kg	102		67-158		
12378-PeCDD	0.0515 U	0.0515	5.00	ng/kg	100		70-142		
123478-HxCDD	0.0373 U	0.0373	5.00	ng/kg	99		70-164		
123678-HxCDD	0.0400 J	0.0396	5.00	ng/kg	95		76-134		
123789-HxCDD	0.0363 U	0.0363	5.00	ng/kg	99		64-162		
1234678-HpCDD	0.0871 J	0.0566	5.00	ng/kg	96		70-140		
OCDD	0.371 J	0.0328	10.0	ng/kg	94		78-144		
2378-TCDF	0.0575 U	0.0575	1.00	ng/kg	96		75-158		
12378-PeCDF	0.0255 J	0.0253	5.00	ng/kg	98		80-134		
23478-PeCDF	0.0542 J	0.0240	5.00	ng/kg	96		68-160		
123478-HxCDF	0.0339 J	0.0255	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0407 J	0.0222	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0286 U	0.0286	5.00	ng/kg	97		78-130		
234678-HxCDF	0.0232 U	0.0232	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.114 J	0.0150	5.00	ng/kg	94		82-122		
1234789-HpCDF	0.0877 J	0.0268	5.00	ng/kg	98		78-138		
OCDF	0.0977 J	0.0930	10.0	ng/kg	97		63-170		

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11278162402A Moisture Content by 160.3	Sample number(s): 6422590-6422597					BKG: P422524 7.6	7.4	2	20
Batch number: 11278162402B Moisture Content by 160.3	Sample number(s): 6422598-6422604					BKG: P422539 4.0	3.9	2	20
Batch number: 11280001	Sample number(s): 6422590-6422604					UNSPK: P419586			

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/19/11 at 10:51 PM

Group Number: 1268919

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
2378-TCDD	98	100	67-158	4	25			
12378-PeCDD	104	101	70-142	2	25			
123478-HxCDD	99	102	70-164	4	25			
123678-HxCDD	98	98	76-134	1	25			
123789-HxCDD	100	100	64-162	1	25			
1234678-HpCDD	97	97	70-140	2	25			
OCDD	94	101	78-144	8	25			
2378-TCDF	96	96	75-158	1	25			
12378-PeCDF	98	99	80-134	2	25			
23478-PeCDF	98	98	68-160	1	25			
123478-HxCDF	97	97	72-134	1	25			
123678-HxCDF	97	98	84-130	2	25			
123789-HxCDF	96	98	78-130	3	25			
234678-HxCDF	98	99	70-156	3	25			
1234678-HpCDF	95	94	82-122	0	25			
1234789-HpCDF	99	98	78-138	0	25			
OCDF	96	98	63-170	3	25			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11280001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6422590	90	84	84	88	85	89
6422591	79	74	73	78	76	78
6422592	77	71	69	76	72	76
6422593	78	72	68	74	74	78
6422594	78	72	61	69	72	80
6422595	59	57	54	59	58	59
6422596	73	67	63	70	66	71
6422597	72	67	62	67	66	70
6422598	72	65	60	67	66	71
6422599	82	75	68	78	73	74
6422600	79	70	66	76	71	74
6422601	76	76	68	77	72	77
6422602	75	74	69	76	70	75
6422603	81	76	71	75	74	82
6422604	87	84	70	76	69	29
Blank	71	67	70	79	73	71
MS	74	67	65	70	69	71
MSD	70	64	66	73	69	73
OPR	53	53	57	63	60	62
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/19/11 at 10:51 PM

Group Number: 1268919

Surrogate Quality Control

6422590	96	84	84	90	92	102
6422591	87	72	74	78	83	86
6422592	88	69	69	77	80	88
6422593	77	73	70	75	80	86
6422594	79	72	71	76	81	89
6422595	71	56	56	62	65	74
6422596	81	63	62	72	73	87
6422597	79	63	58	71	73	83
6422598	78	64	60	68	75	81
6422599	94	64	59	81	87	97
6422600	93	63	58	76	83	89
6422601	105	74	79	82	82	85
6422602	100	74	80	79	87	92
6422603	96	78	82	81	90	91
6422604	97	77	78	91	80	84
Blank	92	65	60	73	85	85
MS	78	63	62	71	76	81
MSD	84	61	54	71	79	86
OPR	71	51	45	57	67	69

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	

6422590	97	97	100	87	89
6422591	83	86	88	76	78
6422592	86	85	85	74	75
6422593	82	82	78	77	74
6422594	88	86	85	74	76
6422595	73	70	71	56	61
6422596	89	82	80	68	73
6422597	83	82	77	70	71
6422598	84	81	76	68	70
6422599	99	91	84	78	82
6422600	93	84	83	74	77
6422601	83	94	108	73	83
6422602	95	99	106	72	82
6422603	96	97	102	78	82
6422604	59	91	104	69	89
Blank	85	81	78	64	72
MS	79	78	77	70	73
MSD	81	78	72	65	71
OPR	66	64	58	50	56

Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1268919

sample# 6422590-604

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										VOCs		SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 18 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 80106/8208/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SW	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chroma EPA 7199	*PH EPA 9045C/9040B	*Perchlorate Confirmation by EPA 6850 (10%)	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	TPH-EFH EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*n-NDMA EPA 1625C	*Energetics EPA 8330A	*Cyanide EPA 9012B	*Tetraphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B		*Downfall EPA 8270
		SL-103-SA7-SB-18.5	9/28/11	1440	SOIL	NONE	2-Encores											X												
		SL-103-SA7-SB-18.0-19.0	9/28/11	1430	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X				X	X	X	X				X	X	X	X	
		SL-106-SA7-SB-4.5	9/28/11	1210	SOIL	NONE	2-Encores											X												
		SL-106-SA7-SB-4.0-5.0	9/28/11	1215	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X				X	X	X	X				X	X	X	X	
		SL-106-SA7-SB-9.5	9/28/11	1223	SOIL	NONE	2-Encores											X												
		SL-106-SA7-SB-9.0-10.0	9/28/11	1230	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X				X	X	X	X				X	X	X	X	
		SL-106-SA7-SB-15.5	9/28/11	0933	SOIL	NONE	5-Encores										X	X	X											
		SL-106-SA7-SB-17.0	9/28/11	1240	SOIL	NONE	2-Encores											X												
		SL-106-SA7-SB-16.5-17.5	9/28/11	1245	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X				X	X	X	X				X	X	X	X	use moisture for Encores from 16.5 ft
		SL-106-SA7-SB-19.5	9/28/11	0945	SOIL	NONE	2-Encores											X												
		SL-106-SA7-SB-19.0-20.0	9/28/11	0950	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X				X	X	X	X				X	X	X	X	
		TB-092711	9/28/11	1430	WATER	NONE	4-40mL vials										X	X	X											
Relinquished by: (Signature)		Date/Time 9/27/2011 / 1630	Received for Laboratory by: (Signature) Banyan LLI 9/27/11 0905																											
Received by: (Signature)		Date/Time	Airbill No. (s) 8767 9858 3494; 8767 9858 3509 8767 9858 3510; [REDACTED]																											
			Laboratory: Lancaster Laboratories, Inc.																											

acct# 13013 Cup# 1268919

sample# 6422590-604

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels ‡ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-007-SA5DS-SS-0.0-0.5	9/28/11	0800	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X			
SL-007-SA5DS-SS-0.0-0.5	9/28/11	0800	SOIL	NONE	1-SS Sleeve			X	X										
SL-008-SA5DS-SS-0.0-0.5	9/28/11	0730	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-008-SA5DS-SS-0.0-0.5	9/28/11	0730	SOIL	NONE	1-SS Sleeve			X	X										
SL-009-SA5DS-SS-0.0-0.5	9/28/11	0950	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-009-SA5DS-SS-0.0-0.5	9/28/11	0950	SOIL	NONE	1-SS Sleeve			X	X										
SL-010-SA5DS-SS-0.0-0.5	9/28/11	0820	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-010-SA5DS-SS-0.0-0.5	9/28/11	0820	SOIL	NONE	1-SS Sleeve			X	X										
SL-013-SA5DS-SS-0.0-0.5	9/28/11	1100	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-013-SA5DS-SS-0.0-0.5	9/28/11	1100	SOIL	NONE	1-SS Sleeve			X	X										
SL-014-SA5DS-SS-0.0-0.5	9/28/11	1005	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-014-SA5DS-SS-0.0-0.5	9/28/11	1005	SOIL	NONE	1-SS Sleeve			X	X										
SL-015-SA5DS-SS-0.0-0.5	9/28/11	1045	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-015-SA5DS-SS-0.0-0.5	9/28/11	1045	SOIL	NONE	1-SS Sleeve			X	X										
SL-016-SA5DS-SS-0.0-0.5	9/28/11	0915	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-016-SA5DS-SS-0.0-0.5	9/28/11	0915	SOIL	NONE	1-SS Sleeve			X	X										
SL-017-SA5DS-SS-0.0-0.5	9/28/11	0835	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-017-SA5DS-SS-0.0-0.5	9/28/11	0835	SOIL	NONE	1-SS Sleeve			X	X										
SL-033-SA5DS-SS-0.0-0.5	9/28/11	1325	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-033-SA5DS-SS-0.0-0.5	9/28/11	1325	SOIL	NONE	1-SS Sleeve			X	X										
SL-034-SA5DS-SS-0.0-0.5MS	9/28/11	1345	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X				
SL-034-SA5DS-SS-0.0-0.5MS	9/28/11	1345	SOIL	NONE	1-SS Sleeve			X	X										
SL-040-SA5DS-SS-0.0-0.5	9/28/11	1505	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
SL-040-SA5DS-SS-0.0-0.5	9/28/11	1505	SOIL	NONE	1-SS Sleeve			X	X										
DUP-02-SA5DS-QC-092811	9/28/11	1355	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X				
DUP-02-SA5DS-QC-092811	9/28/11	1355	SOIL	NONE	1-SS Sleeve			X	X										
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		③ GC-612311										Laboratory:			
<i>[Signature]</i>		09/28/2011 / 1630		<i>[Signature]</i> LLT 9/28/11-400 0705												Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Air Mail No. (S)															
				8767 9858 3494; 8767 9858 3509															
				8767 9858 3510; [REDACTED]															

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 24, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/29/2011

Group Number: 1268920

SDG: DX146

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-034-SA5DS-SS-0.0-0.5 Soil
SL-034-SA5DS-SS-0.0-0.5MS Soil
SL-034-SA5DS-SS-0.0-0.5MSD Soil
SL-040-SA5DS-SS-0.0-0.5 Soil
DUP-02-SA5DS-QC-092811 Soil
EB-SA5DS-SS-092811 WaterLancaster Labs (LLI) #6422605
6422606
6422607
6422608
6422609
6422610

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422605
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4601 SDG#: DX146-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422605
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4601 SDG#: DX146-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0275 U	0.0275	1.03	1
11031	12378-PeCDD	40321-76-4	0.0265 U	0.0265	5.13	1
11031	123478-HxCDD	39227-28-6	0.0227 U	0.0227	5.13	1
11031	123678-HxCDD	57653-85-7	0.0828 JQ	0.0233	5.13	1
11031	123789-HxCDD	19408-74-3	0.133 JQ	0.0244	5.13	1
11031	1234678-HpCDD	35822-46-9	0.974 JBQ	0.0306	5.13	1
11031	OCDD	3268-87-9	9.33 JB	0.0295	10.3	1
11031	2378-TCDF	51207-31-9	0.0290 U	0.0290	1.03	1
11031	12378-PeCDF	57117-41-6	0.0401 JBQ	0.0176	5.13	1
11031	23478-PeCDF	57117-31-4	0.0902 JBQ	0.0168	5.13	1
11031	123478-HxCDF	70648-26-9	0.0775 JBQ	0.0315	5.13	1
11031	123678-HxCDF	57117-44-9	0.0507 JBQ	0.0302	5.13	1
11031	123789-HxCDF	72918-21-9	0.101 JBQ	0.0180	5.13	1
11031	234678-HxCDF	60851-34-5	0.0678 JBQ	0.0156	5.13	1
11031	1234678-HpCDF	67562-39-4	0.301 JB	0.0221	5.13	1
11031	1234789-HpCDF	55673-89-7	0.0310 JBQ	0.0217	5.13	1
11031	OCDF	39001-02-0	0.613 JB	0.0370	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	35	26 - 152
13C12-123678-HxCDF	37	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	54	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422605
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4601 SDG#: DX146-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Page 4 of 4

Sample Description: SL-034-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422605
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4601 SDG#: DX146-01BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 00:42	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422606
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4601 SDG#: DX146-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422606
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4601 SDG#: DX146-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.6	0.0416	1.02	1
11031	12378-PeCDD	40321-76-4	100 B	0.0481	5.08	1
11031	123478-HxCDD	39227-28-6	98.5	0.0613	5.08	1
11031	123678-HxCDD	57653-85-7	95.6	0.0656	5.08	1
11031	123789-HxCDD	19408-74-3	97.7	0.0590	5.08	1
11031	1234678-HpCDD	35822-46-9	97.9 B	0.0624	5.08	1
11031	OCDD	3268-87-9	202 B	0.0690	10.2	1
11031	2378-TCDF	51207-31-9	19.1	0.0438	1.02	1
11031	12378-PeCDF	57117-41-6	96.4 B	0.0315	5.08	1
11031	23478-PeCDF	57117-31-4	95.8 B	0.0309	5.08	1
11031	123478-HxCDF	70648-26-9	94.6 B	0.268	5.08	1
11031	123678-HxCDF	57117-44-9	94.5 B	0.271	5.08	1
11031	123789-HxCDF	72918-21-9	96.0 B	0.0653	5.08	1
11031	234678-HxCDF	60851-34-5	95.8 B	0.0578	5.08	1
11031	1234678-HpCDF	67562-39-4	92.8 B	0.159	5.08	1
11031	1234789-HpCDF	55673-89-7	97.6 B	0.0767	5.08	1
11031	OCDF	39001-02-0	191 B	0.0773	10.2	1

The recoveries of several labeled compounds were outside of QC limits for this sample. The associated native compounds were within QC limits, therefore, the data is reported.

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	87	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	16	26 - 152
13C12-123678-HxCDF	15	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	27	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column



Analysis Report

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Page 3 of 4

Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422606
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/29/2011 09:05

Suite 210

Reported: 10/24/2011 08:52

Chantilly VA 20151

X4601 SDG#: DX146-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Q	EMPC - Estimated Maximum Possible Concentration					
F	Interference is present					
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-034-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422606
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

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Chantilly VA 20151

X4601 SDG#: DX146-01MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 04:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422607
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/24/2011 08:52

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X4601 SDG#: DX146-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422607
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/24/2011 08:52

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X4601 SDG#: DX146-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.3	0.0367	1.01	1
11031	12378-PeCDD	40321-76-4	99.5 B	0.0384	5.05	1
11031	123478-HxCDD	39227-28-6	101	0.0399	5.05	1
11031	123678-HxCDD	57653-85-7	99.5	0.0454	5.05	1
11031	123789-HxCDD	19408-74-3	98.0	0.0375	5.05	1
11031	1234678-HpCDD	35822-46-9	101 B	0.0658	5.05	1
11031	OCDD	3268-87-9	350 B	0.0783	10.1	1
11031	2378-TCDF	51207-31-9	19.4	0.0458	1.01	1
11031	12378-PeCDF	57117-41-6	96.3 B	0.0316	5.05	1
11031	23478-PeCDF	57117-31-4	94.9 B	0.0305	5.05	1
11031	123478-HxCDF	70648-26-9	96.4 B	0.0870	5.05	1
11031	123678-HxCDF	57117-44-9	93.3 B	0.0805	5.05	1
11031	123789-HxCDF	72918-21-9	95.5 B	0.0545	5.05	1
11031	234678-HxCDF	60851-34-5	95.1 B	0.0483	5.05	1
11031	1234678-HpCDF	67562-39-4	92.6 B	0.0599	5.05	1
11031	1234789-HpCDF	55673-89-7	96.8 B	0.0658	5.05	1
11031	OCDF	39001-02-0	191 B	0.0611	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	91	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	96	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	94	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	44	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	65	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422607
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/24/2011 08:52

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X4601 SDG#: DX146-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-034-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422607
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:45

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/24/2011 08:52

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Chantilly VA 20151

X4601 SDG#: DX146-01MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 05:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422608
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

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Chantilly VA 20151

X4602 SDG#: DX146-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	1.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422608
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/24/2011 08:52

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X4602 SDG#: DX146-02

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	0.0274 U	0.0274	1.01	1
11031	12378-PeCDD	40321-76-4	0.154 JB	0.0298	5.06	1
11031	123478-HxCDD	39227-28-6	0.341 J	0.0439	5.06	1
11031	123678-HxCDD	57653-85-7	0.696 JQ	0.0486	5.06	1
11031	123789-HxCDD	19408-74-3	0.648 J	0.0372	5.06	1
11031	1234678-HpCDD	35822-46-9	10.8 B	0.0450	5.06	1
11031	OCDD	3268-87-9	109 B	0.0435	10.1	1
11031	2378-TCDF	51207-31-9	0.186 J	0.0314	1.01	1
11031	12378-PeCDF	57117-41-6	0.201 JBQ	0.0184	5.06	1
11031	23478-PeCDF	57117-31-4	0.0854 JB	0.0182	5.06	1
11031	123478-HxCDF	70648-26-9	0.275 JBQ	0.0531	5.06	1
11031	123678-HxCDF	57117-44-9	0.219 JBQ	0.0498	5.06	1
11031	123789-HxCDF	72918-21-9	0.585 JB	0.0201	5.06	1
11031	234678-HxCDF	60851-34-5	0.172 JB	0.0171	5.06	1
11031	1234678-HpCDF	67562-39-4	1.38 JB	0.0399	5.06	1
11031	1234789-HpCDF	55673-89-7	0.128 JBQ	0.0265	5.06	1
11031	OCDF	39001-02-0	4.60 JB	0.0275	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	96	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	94	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	26	26 - 152
13C12-123678-HxCDF	27	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	41	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422608
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4602 SDG#: DX146-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-040-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SS-0.0-0.5

LLI Sample # SW 6422608
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 15:05

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

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Reported: 10/24/2011 08:52

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X4602 SDG#: DX146-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 06:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162402B	10/05/2011 21:20	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422609
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

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X4603 SDG#: DX146-03FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	3.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422609
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

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X4603 SDG#: DX146-03FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0349 U	0.0349	1.01	1
11031	12378-PeCDD	40321-76-4	0.0619 JB	0.0317	5.06	1
11031	123478-HxCDD	39227-28-6	0.0496 JBQ	0.0248	5.06	1
11031	123678-HxCDD	57653-85-7	0.0932 JB	0.0258	5.06	1
11031	123789-HxCDD	19408-74-3	0.192 JBQ	0.0243	5.06	1
11031	1234678-HpCDD	35822-46-9	0.809 JB	0.0253	5.06	1
11031	OCDD	3268-87-9	6.37 JB	0.0209	10.1	1
11031	2378-TCDF	51207-31-9	0.0615 J	0.0275	1.01	1
11031	12378-PeCDF	57117-41-6	0.107 JB	0.0203	5.06	1
11031	23478-PeCDF	57117-31-4	0.117 JB	0.0193	5.06	1
11031	123478-HxCDF	70648-26-9	0.172 JB	0.0333	5.06	1
11031	123678-HxCDF	57117-44-9	0.101 JBQ	0.0285	5.06	1
11031	123789-HxCDF	72918-21-9	0.174 JQ	0.0196	5.06	1
11031	234678-HxCDF	60851-34-5	0.134 JBQ	0.0161	5.06	1
11031	1234678-HpCDF	67562-39-4	0.571 JB	0.0239	5.06	1
11031	1234789-HpCDF	55673-89-7	0.0552 JB	0.0241	5.06	1
11031	OCDF	39001-02-0	0.480 JB	0.0340	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	38	26 - 152
13C12-123678-HxCDF	41	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	60	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422609
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4603 SDG#: DX146-03FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: DUP-02-SA5DS-QC-092811 Soil
SSFL Area IV Collocated Soil Sampling
DUP-02-SA5DS-QC-092811

LLI Sample # SW 6422609
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:55

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4603 SDG#: DX146-03FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11292003	10/20/2011 19:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11292003	10/19/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11279162401A	10/06/2011 22:58	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 2

Sample Description: EB-SA5DS-SS-092811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SS-092811

LLI Sample # WW 6422610
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4604 SDG#: DX146-04EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.198 U	0.198	1.94	1
10915	12378-PeCDD	40321-76-4	0.594 JBQ	0.214	9.69	1
10915	123478-HxCDD	39227-28-6	0.360 JB	0.179	9.69	1
10915	123678-HxCDD	57653-85-7	0.286 JB	0.183	9.69	1
10915	123789-HxCDD	19408-74-3	0.355 JBQ	0.181	9.69	1
10915	1234678-HpCDD	35822-46-9	2.89 JB	0.297	9.69	1
10915	OCDD	3268-87-9	5.08 JB	0.321	19.4	1
10915	2378-TCDF	51207-31-9	0.159 U	0.159	1.94	1
10915	12378-PeCDF	57117-41-6	0.627 JBQ	0.135	9.69	1
10915	23478-PeCDF	57117-31-4	0.712 JB	0.122	9.69	1
10915	123478-HxCDF	70648-26-9	0.497 JB	0.112	9.69	1
10915	123678-HxCDF	57117-44-9	0.497 JB	0.113	9.69	1
10915	123789-HxCDF	72918-21-9	0.562 JB	0.108	9.69	1
10915	234678-HxCDF	60851-34-5	0.387 JBQ	0.110	9.69	1
10915	1234678-HpCDF	67562-39-4	1.76 JB	0.135	9.69	1
10915	1234789-HpCDF	55673-89-7	0.521 JBQ	0.154	9.69	1
10915	OCDF	39001-02-0	1.67 JBQ	0.217	19.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	60	25 - 181
13C12-123478-HxCDD	55	32 - 141
13C12-123678-HxCDD	56	28 - 130
13C12-123789-HxCDD	58	28 - 130
13C12-1234678-HpCDD	55	23 - 140
13C12-OCDD	50	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	58	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	54	26 - 123
13C12-234678-HxCDF	58	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	52	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: EB-SA5DS-SS-092811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SS-092811

LLI Sample # WW 6422610
LLI Group # 1268920
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/28/2011 13:00

CDM Federal Programs Corp.

Submitted: 09/29/2011 09:05

14420 Albemarle Point Place

Reported: 10/24/2011 08:52

Suite 210

Chantilly VA 20151

X4604 SDG#: DX146-04EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
S	Saturation of detection signal					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	11276001	10/05/2011 10:41	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	11276001	10/03/2011 08:30	Ginelle L Haines	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 08:52 AM

Group Number: 1268920

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11278162402B Moisture Content by 160.3	Sample number(s): 6422605-6422608				100		80-120		
Batch number: 11279162401A Moisture Content by 160.3	Sample number(s): 6422609				100		80-120		
<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11276001	Sample number(s): 6422610								
2378-TCDD	0.373 J	0.201	2.00	pg/l	98		67-158		
12378-PeCDD	0.712 J	0.210	10.0	pg/l	103		70-142		
123478-HxCDD	0.388 J	0.188	10.0	pg/l	108		70-164		
123678-HxCDD	0.421 J	0.188	10.0	pg/l	102		76-134		
123789-HxCDD	0.543 J	0.197	10.0	pg/l	106		64-162		
1234678-HpCDD	2.57 J	0.190	10.0	pg/l	108		70-140		
OCDD	3.69 J	0.255	20.0	pg/l	114		78-144		
2378-TCDF	0.261 J	0.181	2.00	pg/l	101		75-158		
12378-PeCDF	0.901 J	0.140	10.0	pg/l	104		80-134		
23478-PeCDF	0.929 J	0.125	10.0	pg/l	104		68-160		
123478-HxCDF	0.622 J	0.127	10.0	pg/l	108		72-134		
123678-HxCDF	0.553 J	0.120	10.0	pg/l	107		84-130		
123789-HxCDF	0.770 J	0.119	10.0	pg/l	105		78-130		
234678-HxCDF	0.643 J	0.118	10.0	pg/l	105		70-156		
1234678-HpCDF	1.42 J	0.109	10.0	pg/l	109		82-122		
1234789-HpCDF	0.763 J	0.124	10.0	pg/l	109		78-138		
OCDF	1.50 J	0.190	20.0	pg/l	112		63-170		
Batch number: 11283001	Sample number(s): 6422605-6422608								
2378-TCDD	0.0290 U	0.0290	1.00	ng/kg	98		67-158		
12378-PeCDD	0.0326 J	0.0224	5.00	ng/kg	101		70-142		
123478-HxCDD	0.0170 U	0.0170	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0176 U	0.0176	5.00	ng/kg	98		76-134		
123789-HxCDD	0.0169 U	0.0169	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.268 J	0.0221	5.00	ng/kg	96		70-140		
OCDD	0.392 J	0.0160	10.0	ng/kg	95		78-144		
2378-TCDF	0.0216 U	0.0216	1.00	ng/kg	98		75-158		
12378-PeCDF	0.0149 J	0.0125	5.00	ng/kg	97		80-134		
23478-PeCDF	0.0319 J	0.0127	5.00	ng/kg	93		68-160		
123478-HxCDF	0.0314 J	0.0139	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0471 J	0.0114	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0484 J	0.0132	5.00	ng/kg	96		78-130		
234678-HxCDF	0.0274 J	0.0107	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.129 J	0.00980	5.00	ng/kg	93		82-122		
1234789-HpCDF	0.0187 J	0.0142	5.00	ng/kg	96		78-138		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 08:52 AM

Group Number: 1268920

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
OCDF	0.121 J	0.0323	10.0	ng/kg	96		63-170		
Batch number: 11292003 Sample number(s): 6422609									
2378-TCDD	0.0344 U	0.0344	1.00	ng/kg	102		67-158		
12378-PeCDD	0.0488 J	0.0288	5.00	ng/kg	99		70-142		
123478-HxCDD	0.0310 J	0.0190	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0294 J	0.0192	5.00	ng/kg	92		76-134		
123789-HxCDD	0.0415 J	0.0191	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.305 J	0.0224	5.00	ng/kg	95		70-140		
OCDD	0.653 J	0.0196	10.0	ng/kg	93		78-144		
2378-TCDF	0.0262 U	0.0262	1.00	ng/kg	95		75-158		
12378-PeCDF	0.0392 J	0.0149	5.00	ng/kg	98		80-134		
23478-PeCDF	0.0693 J	0.0140	5.00	ng/kg	92		68-160		
123478-HxCDF	0.114 J	0.0232	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0822 J	0.0204	5.00	ng/kg	97		84-130		
123789-HxCDF	0.0174 U	0.0174	5.00	ng/kg	96		78-130		
234678-HxCDF	0.0874 J	0.0146	5.00	ng/kg	93		70-156		
1234678-HpCDF	0.370 J	0.0160	5.00	ng/kg	87		82-122		
1234789-HpCDF	0.0805 J	0.0189	5.00	ng/kg	93		78-138		
OCDF	0.256 J	0.0304	10.0	ng/kg	94		63-170		

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: 11278162402B Sample number(s): 6422605-6422608 BKG: P422539									
Moisture Content by 160.3						4.0	3.9	2	20
Batch number: 11279162401A Sample number(s): 6422609 BKG: P419519									
Moisture Content by 160.3						4.6	4.9	5	20
Batch number: 11283001 Sample number(s): 6422605-6422608 UNSPK: 6422605									
2378-TCDD	96	101	67-158	4	25				
12378-PeCDD	99	99	70-142	1	25				
123478-HxCDD	97	100	70-164	2	25				
123678-HxCDD	94	98	76-134	4	25				
123789-HxCDD	96	97	64-162	0	25				
1234678-HpCDD	95	99	70-140	4	25				
OCDD	95	169*	78-144	54*	25				
2378-TCDF	94	96	75-158	2	25				
12378-PeCDF	95	95	80-134	0	25				
23478-PeCDF	94	94	68-160	1	25				
123478-HxCDF	93	95	72-134	2	25				
123678-HxCDF	93	92	84-130	1	25				
123789-HxCDF	94	95	78-130	0	25				
234678-HxCDF	94	94	70-156	1	25				
1234678-HpCDF	91	91	82-122	0	25				
1234789-HpCDF	96	96	78-138	1	25				
OCDF	94	94	63-170	0	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 08:52 AM

Group Number: 1268920

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10b Dioxin/Furan by EPA 1613B

Batch number: 11276001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6422610	61	61	54	54	58	63
Blank	92	94	87	90	94	99
OPR	79	75	76	77	79	87

Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6422610	52	52	51	60	55	56
Blank	90	90	92	92	91	92
OPR	75	74	73	75	76	78

Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6422610	58	55	50	62	58	
Blank	93	94	92	91	91	
OPR	78	74	72	77	77	

Limits:	28-130	23-140	17-157	24-169	24-185	

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11283001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6422605	70	65	35	37	70	72
6422606	75	68	16*	15*	70	73
6422607	78	70	41	44	74	75
6422608	80	71	26	27	78	77
Blank	80	72	62	74	76	74
MS	75	68	16*	15*	70	73
MSD	78	70	41	44	74	75
OPR	69	65	22	24	67	70

Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6422605	54	69	71	71	79	83
6422606	27*	67	69	73	78	75
6422607	65	69	72	77	91	85
6422608	41	73	75	76	84	79
Blank	92	74	78	82	92	92
MS	27	67	69	73	78	75
MSD	65	69	72	77	91	85
OPR	43	69	70	74	81	80

Limits:	28-143	26-138	17-157	25-181	32-141	28-130

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 08:52 AM

Group Number: 1268920

Surrogate Quality Control

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6422605	80	85	90	67	69	
6422606	81	85	87	71	75	
6422607	96	91	94	74	79	
6422608	96	90	94	77	76	
Blank	92	100	105	73	80	
MS	81	85	87	71	75	
MSD	96	91	94	74	79	
OPR	83	93	96	62	71	
Limits:	28-130	23-140	17-157	24-169	24-185	
Analysis Name: 10a Dioxin/Furan by EPA 1613B						
Batch number: 11292003						
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6422609	73	68	38	41	72	69
Blank	76	75	52	58	82	79
OPR	69	67	53	59	70	68
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6422609	60	71	74	76	82	82
Blank	81	85	90	80	89	93
OPR	80	70	73	74	81	80
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6422609	83	88	95	68	75	
Blank	93	102	109	71	77	
OPR	83	89	92	64	72	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct#13013 Cyp#1263920

sample# 6422605-10

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report TetraIn under EPA Method 8270C.						*Metals EPA 6010/6020B&741A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8062	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chlorine EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>Vidal Cntz</i>																		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-007-SA5DS-SS-0.0-0.5	9/28/11	0800	SOIL	NONE	1-16 oz Jar	X	X								X	X		
SL-007-SA5DS-SS-0.0-0.5	9/28/11	0800	SOIL	NONE	1-SS Sleeve			X	X									
SL-008-SA5DS-SS-0.0-0.5	9/28/11	0730	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-008-SA5DS-SS-0.0-0.5	9/28/11	0730	SOIL	NONE	1-SS Sleeve			X	X									
SL-009-SA5DS-SS-0.0-0.5	9/28/11	0950	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-009-SA5DS-SS-0.0-0.5	9/28/11	0950	SOIL	NONE	1-SS Sleeve			X	X									
SL-010-SA5DS-SS-0.0-0.5	9/28/11	0820	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-010-SA5DS-SS-0.0-0.5	9/28/11	0820	SOIL	NONE	1-SS Sleeve			X	X									
SL-013-SA5DS-SS-0.0-0.5	9/28/11	1100	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-013-SA5DS-SS-0.0-0.5	9/28/11	1100	SOIL	NONE	1-SS Sleeve			X	X									
SL-014-SA5DS-SS-0.0-0.5	9/28/11	1005	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-014-SA5DS-SS-0.0-0.5	9/28/11	1005	SOIL	NONE	1-SS Sleeve			X	X									
SL-015-SA5DS-SS-0.0-0.5	9/28/11	1045	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-015-SA5DS-SS-0.0-0.5	9/28/11	1045	SOIL	NONE	1-SS Sleeve			X	X									
SL-016-SA5DS-SS-0.0-0.5	9/28/11	0915	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-016-SA5DS-SS-0.0-0.5	9/28/11	0915	SOIL	NONE	1-SS Sleeve			X	X									
SL-017-SA5DS-SS-0.0-0.5	9/28/11	0835	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-017-SA5DS-SS-0.0-0.5	9/28/11	0835	SOIL	NONE	1-SS Sleeve			X	X									
SL-033-SA5DS-SS-0.0-0.5	9/28/11	1325	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-033-SA5DS-SS-0.0-0.5	9/28/11	1325	SOIL	NONE	1-SS Sleeve			X	X									
SL-034-SA5DS-SS-0.0-0.5MS	9/28/11	1345	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X		
SL-034-SA5DS-SS-0.0-0.5MS	9/28/11	1345	SOIL	NONE	1-SS Sleeve			X	X									
SL-040-SA5DS-SS-0.0-0.5	9/28/11	1505	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-040-SA5DS-SS-0.0-0.5	9/28/11	1505	SOIL	NONE	1-SS Sleeve			X	X									
DUP-02-SA5DS-QC-092811	9/28/11	1355	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
DUP-02-SA5DS-QC-092811	9/28/11	1355	SOIL	NONE	1-SS Sleeve			X	X									
Relinquished by: (Signature) <i>[Signature]</i>		Date/Time 09/28/2011 / 1630		Received for Laboratory by: (Signature) <i>[Signature]</i> 9/28/11 1100 0905										Laboratory: Lancaster Laboratories, Inc.				
Received by: (Signature) <i>[Signature]</i>		Date/Time		Airbill No. (s) 8767 9858 3494; 8767 9858 3509 8767 9858 3510; [REDACTED]														

acct #13013

Cup # 1263920

Sample # 64 22605-10

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SAS) and Subarea 6 (SA7), report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>Vidal Coker</i>																			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
EB-SA5DS-SS-092811	09.28.11	1300	WATER	NONE	7-1 liter ambers				X	X	X						X	X	
EB-SA5DS-SS-092811	09.28.11	1300	WATER	NONE	1-500 mL poly		X					X	X	X					
EB-SA5DS-SS-092811	09.28.11	1300	WATER	HNO3	1-500 mL poly	X													
Relinquished by: (Signature) <i>[Signature]</i>		Date/Time 09/28/2011 / 1630		Received for Laboratory by: (Signature) <i>[Signature]</i> LI 9/29/11 0905														Laboratory: Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No.(s) 8767 9858 3494; 8767 9858 3509 8767 9858 3510; 8767 9858 3520															

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 09, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/15/2011

Group Number: 1271484

SDG: DE269

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-006-SA3-SB-4.0-5.0 Soil	6438618
SL-006-SA3-SB-9.0-10.0 Soil	6438619
SL-036-SA5DS-SB-4.0-5.0 Soil	6438620
SL-036-SA5DS-SB-9.0-10.0 Soil	6438621
SL-037-SA5DS-SB-4.0-5.0 Soil	6438622
SL-037-SA5DS-SB-9.0-10.0 Soil	6438623
SL-038-SA5DS-SB-4.0-5.0 Soil	6438624
SL-038-SA5DS-SB-9.0-10.0 Soil	6438625
SL-164-SA7-SB-0.5-1.5 Soil	6438626
EB-SA3-SB-101411 Water	6438627
TB-101411 Water	6438628
TB-101411 Sand	6438629

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgesser

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438618
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6901 SDG#: DE269-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438618
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6901 SDG#: DE269-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.9		1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.9		1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438618
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6901 SDG#: DE269-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
acceptance limits. The hold time had expired prior to the second extraction so 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	mg/kg	
01643	Aluminum	7429-90-5	21,500	6.48	21.4		1
07914	Boron	7440-42-8	0.385 U	0.385	5.35		1
01650	Calcium	7440-70-2	1,400	2.68	21.4		1
01654	Iron	7439-89-6	18,300	2.79	21.4		1
01656	Lithium	7439-93-2	21.2	0.66	2.1		1
01657	Magnesium	7439-95-4	3,340	0.471	10.7		1
06958	Manganese	7439-96-5	176	0.0385	0.535		1
10145	Phosphorus	7723-14-0	119	0.375	10.7		1
01662	Potassium	7440-09-7	2,230	12.0	53.0		1
01667	Sodium	7440-23-5	86.7 J	6.31	106		1
07968	Strontium	7440-24-6	20.1	0.0268	0.535		1
06969	Tin	7440-31-5	2.71 J	0.343	10.7		1
06970	Titanium	7440-32-6	1,080	0.0760	1.07		1
10146	Zirconium	7440-67-7	1.24 J	0.492	5.35		1
SW-846 6020							
			mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0784 U	0.0784	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	4.53	0.0848	0.424		2
06126	Barium	7440-39-3	74.4	0.112	0.424		2
06127	Beryllium	7440-41-7	0.768	0.0170	0.106		2
06128	Cadmium	7440-43-9	0.0492 J	0.0466	0.106		2
06131	Chromium	7440-47-3	12.6	0.127	0.424		2
06132	Cobalt	7440-48-4	5.35	0.0212	0.106		2
06133	Copper	7440-50-8	4.36	0.0848	0.424		2
06135	Lead	7439-92-1	5.91	0.0108	0.212		2
06138	Molybdenum	7439-98-7	0.821	0.0530	0.106		2
06139	Nickel	7440-02-0	7.96	0.106	0.424		2
06141	Selenium	7782-49-2	0.131 J	0.0615	0.424		2
06142	Silver	7440-22-4	0.0498 J	0.0151	0.106		2
06145	Thallium	7440-28-0	0.258	0.0318	0.106		2
06148	Vanadium	7440-62-2	29.0	0.0233	0.106		2
06149	Zinc	7440-66-6	50.0	0.594	3.18		2
SW-846 7471A							
			mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.106		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.7	0.86	1.1		1
EPA 314.0							
			ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.1		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438618
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6901 SDG#: DE269-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.77 J	0.22	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.03	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	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	11291SLD026	10/21/2011 06:41	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/21/2011 12:59	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112910025A	10/21/2011 11:49	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112910025A	10/19/2011 12:00	Olivia I Santiago	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 10:52	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 10:52	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:04	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438618
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6901 SDG#: DE269-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 07:54	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 07:54	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 07:54	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 07:54	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 09:56	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201A	10/27/2011 12:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 14:50	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11292243201A	10/20/2011 17:07	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201A	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402A	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438619
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6902 SDG#: DE269-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438619
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6902 SDG#: DE269-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9		1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20		1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	28	6.7	20		1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9		1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9		1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20		1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9		1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438619
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6902 SDG#: DE269-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
acceptance limits. The hold time had expired prior to the second extraction so 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	mg/kg	
01643	Aluminum	7429-90-5	17,500	6.72	22.2		1
07914	Boron	7440-42-8	0.400 U	0.400	5.55		1
01650	Calcium	7440-70-2	1,170	2.78	22.2		1
01654	Iron	7439-89-6	18,700	2.90	22.2		1
01656	Lithium	7439-93-2	18.9	0.69	2.2		1
01657	Magnesium	7439-95-4	3,550	0.489	11.1		1
06958	Manganese	7439-96-5	168	0.0400	0.555		1
10145	Phosphorus	7723-14-0	96.4	0.389	11.1		1
01662	Potassium	7440-09-7	1,560	12.4	55.0		1
01667	Sodium	7440-23-5	145	6.54	110		1
07968	Strontium	7440-24-6	16.4	0.0278	0.555		1
06969	Tin	7440-31-5	2.92 J	0.355	11.1		1
06970	Titanium	7440-32-6	1,080	0.0788	1.11		1
10146	Zirconium	7440-67-7	1.23 J	0.511	5.55		1
SW-846 6020							
			mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.161 J	0.0830	0.224		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	6.31	0.0897	0.449		2
06126	Barium	7440-39-3	74.3	0.119	0.449		2
06127	Beryllium	7440-41-7	1.07	0.0179	0.112		2
06128	Cadmium	7440-43-9	0.0493 U	0.0493	0.112		2
06131	Chromium	7440-47-3	15.3	0.135	0.449		2
06132	Cobalt	7440-48-4	5.76	0.0224	0.112		2
06133	Copper	7440-50-8	6.28	0.0897	0.449		2
06135	Lead	7439-92-1	7.77	0.0114	0.224		2
06138	Molybdenum	7439-98-7	0.773	0.0561	0.112		2
06139	Nickel	7440-02-0	7.43	0.112	0.449		2
06141	Selenium	7782-49-2	0.114 J	0.0650	0.449		2
06142	Silver	7440-22-4	0.0453 J	0.0159	0.112		2
06145	Thallium	7440-28-0	0.270	0.0336	0.112		2
06148	Vanadium	7440-62-2	38.3	0.0247	0.112		2
06149	Zinc	7440-66-6	59.2	0.628	3.36		2
SW-846 7471A							
			mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0078 U	0.0078	0.111		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.1	0.91	1.1		1
EPA 314.0							
			ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.0		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438619
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/15/2011 09:45

Reported: 11/09/2011 11:09

E6902 SDG#: DE269-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.65	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	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	11291SLD026	10/21/2011 07:06	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/21/2011 14:38	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112910025A	10/21/2011 12:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112910025A	10/19/2011 12:00	Olivia I Santiago	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 10:56	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 10:56	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:09	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438619
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6902 SDG#: DE269-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 07:57	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 07:57	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 07:57	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 07:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 09:57	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201A	10/27/2011 12:16	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 15:59	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201A	10/20/2011 17:28	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201A	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402A	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 5

Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438620
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6903 SDG#: DE269-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438620
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6903 SDG#: DE269-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9		1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9		1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.76 U	0.76	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.76 U	0.76	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.76 U	0.76	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.76 U	0.76	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.76 U	0.76	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20		1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.76 U	0.76	1.9		1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.3 J	6.8	20		1
10138	Fluoranthene	206-44-0	0.76 U	0.76	1.9		1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76 U	0.76	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9		1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20		1
10138	Phenanthrene	85-01-8	0.76 U	0.76	1.9		1
10138	Pyrene	129-00-0	0.76 U	0.76	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8		1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9		1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9		1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9		1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9		1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9		1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9		1
10225	PCB-1260	11096-82-5	0.45 U	0.45	1.9		1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9		1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	27,200	6.73	22.2		1
07914	Boron	7440-42-8	0.400 U	0.400	5.56		1
01650	Calcium	7440-70-2	7,650	2.78	22.2		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438620
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6903 SDG#: DE269-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	33,700	5.81	44.5		2
01656	Lithium	7439-93-2	32.7	0.69	2.2		1
01657	Magnesium	7439-95-4	8,690	0.489	11.1		1
06958	Manganese	7439-96-5	352	0.0400	0.556		1
10145	Phosphorus	7723-14-0	635	0.389	11.1		1
01662	Potassium	7440-09-7	3,350	12.7	56.2		1
01667	Sodium	7440-23-5	166	6.68	112		1
07968	Strontium	7440-24-6	59.3	0.0278	0.556		1
06969	Tin	7440-31-5	2.64 J	0.356	11.1		1
06970	Titanium	7440-32-6	1,650	0.0790	1.11		1
10146	Zirconium	7440-67-7	8.51	0.512	5.56		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.276	0.0831	0.225		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	10.4	0.0898	0.449		2
06126	Barium	7440-39-3	112	0.119	0.449		2
06127	Beryllium	7440-41-7	1.04	0.0180	0.112		2
06128	Cadmium	7440-43-9	0.0551 J	0.0494	0.112		2
06131	Chromium	7440-47-3	28.3	0.135	0.449		2
06132	Cobalt	7440-48-4	13.0	0.0225	0.112		2
06133	Copper	7440-50-8	32.6	0.0898	0.449		2
06135	Lead	7439-92-1	17.3	0.0115	0.225		2
06138	Molybdenum	7439-98-7	0.376	0.0562	0.112		2
06139	Nickel	7440-02-0	20.8	0.112	0.449		2
06141	Selenium	7782-49-2	0.110 J	0.0651	0.449		2
06142	Silver	7440-22-4	0.0159 U	0.0159	0.112		2
06145	Thallium	7440-28-0	0.451	0.0337	0.112		2
06148	Vanadium	7440-62-2	74.7	0.0247	0.112		2
06149	Zinc	7440-66-6	101	0.629	3.37		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0194 J	0.0079	0.112		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.3	0.93	1.2		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.4		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.2		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 4 of 5

Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438620
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6903 SDG#: DE269-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.39	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.7	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11291SLD026	10/21/2011 07:31	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/21/2011 15:11	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113010003A	11/02/2011 04:44	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	2	113010003A	10/28/2011 18:15	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 20:13	John P Hook	2
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 11:00	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 11:00	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:13	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 08:00	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438620
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6903 SDG#: DE269-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 08:00	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 08:00	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 08:00	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 09:58	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201A	10/27/2011 12:31	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 16:22	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201A	10/20/2011 17:43	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201A	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402A	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 5

Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438621
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6904 SDG#: DE269-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438621
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6904 SDG#: DE269-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9		1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9		1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.76 U	0.76	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.76 U	0.76	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.76 U	0.76	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.76 U	0.76	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.76 U	0.76	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.9 U	6.9	21		1
10138	Di-n-butylphthalate	84-74-2	6.9 U	6.9	21		1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.76 U	0.76	1.9		1
10138	Diethylphthalate	84-66-2	6.9 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	6.9 U	6.9	21		1
10138	Fluoranthene	206-44-0	0.76 U	0.76	1.9		1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76 U	0.76	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9		1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.9 U	6.9	21		1
10138	Phenanthrene	85-01-8	0.76 U	0.76	1.9		1
10138	Pyrene	129-00-0	0.76 U	0.76	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8		1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8		1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.8		1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0		1
10225	PCB-1221	11104-28-2	0.38 U	0.38	2.0		1
10225	PCB-1232	11141-16-5	0.38 U	0.38	2.0		1
10225	PCB-1242	53469-21-9	0.38 U	0.38	2.0		1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0		1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0		1
10225	PCB-1260	11096-82-5	0.45 U	0.45	2.0		1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0		1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0		1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 3 of 5

Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438621
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6904 SDG#: DE269-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.							
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside of the method required holding time, and LCS/LCSD recoveries are within the QC acceptance limits. The hold time had expired prior to the second extraction so all results are reported from the original extract. Similar results were obtained in both trials with the exception of:							
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,400	6.69	22.1		1
07914	Boron	7440-42-8	0.398 U	0.398	5.53		1
01650	Calcium	7440-70-2	18,600	2.77	22.1		1
01654	Iron	7439-89-6	32,600	5.78	44.3		2
01656	Lithium	7439-93-2	30.9	0.69	2.2		1
01657	Magnesium	7439-95-4	6,960	0.487	11.1		1
06958	Manganese	7439-96-5	366	0.0398	0.553		1
10145	Phosphorus	7723-14-0	192	0.387	11.1		1
01662	Potassium	7440-09-7	3,050	12.7	56.4		1
01667	Sodium	7440-23-5	130	6.71	113		1
07968	Strontium	7440-24-6	51.6	0.0277	0.553		1
06969	Tin	7440-31-5	2.81 J	0.354	11.1		1
06970	Titanium	7440-32-6	1,650	0.0786	1.11		1
10146	Zirconium	7440-67-7	5.63	0.509	5.53		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.201 J	0.0835	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	7.22	0.0903	0.451		2
06126	Barium	7440-39-3	150	0.120	0.451		2
06127	Beryllium	7440-41-7	0.929	0.0181	0.113		2
06128	Cadmium	7440-43-9	0.172	0.0496	0.113		2
06131	Chromium	7440-47-3	36.9	0.135	0.451		2
06132	Cobalt	7440-48-4	13.4	0.0226	0.113		2
06133	Copper	7440-50-8	16.7	0.0903	0.451		2
06135	Lead	7439-92-1	10.6	0.0115	0.226		2
06138	Molybdenum	7439-98-7	0.517	0.0564	0.113		2
06139	Nickel	7440-02-0	20.5	0.113	0.451		2
06141	Selenium	7782-49-2	0.175 J	0.0654	0.451		2
06142	Silver	7440-22-4	0.0257 J	0.0160	0.113		2
06145	Thallium	7440-28-0	0.398	0.0338	0.113		2
06148	Vanadium	7440-62-2	77.1	0.0248	0.113		2
06149	Zinc	7440-66-6	77.1	0.632	3.38		2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438621
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6904 SDG#: DE269-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 0.0077 U	mg/kg 0.0077	mg/kg 0.109	mg/kg	1
Wet Chemistry							
07332	11a Anions by 300.0 - Fluoride	EPA 300.0 16984-48-8	mg/kg 3.9	mg/kg 0.93	mg/kg 1.2	mg/kg	1
10147	7a Perchlorate	EPA 314.0 14797-73-0	ug/kg 10.4 U	ug/kg 10.4	ug/kg 34.5	ug/kg	1
05892	3a Cr VI by EPA 7199	SW-846 7199 18540-29-9	mg/kg 0.22 U	mg/kg 0.22	mg/kg 1.1	mg/kg	1
00394	17a pH by 9045C	SW-846 9045C modified n.a.	Std. Units 8.39	Std. Units 0.0100	Std. Units 0.0100	Std. Units	1
11624	Moisture Content by 160.3	EPA 160.3 modified n.a.	% 13.1	% 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	11291SLD026	10/21/2011 07:56	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/21/2011 15:43	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112910025A	10/21/2011 12:46	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112910025A	10/19/2011 12:00	Olivia I Santiago	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 20:17	John P Hook	2
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438621
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6904 SDG#: DE269-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 11:04	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 11:04	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:17	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 08:03	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 08:03	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 08:03	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 08:03	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 10:03	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201A	10/27/2011 12:46	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 16:45	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201A	10/20/2011 17:57	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201A	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402A	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 5

Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438622
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6905 SDG#: DE269-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438622
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6905 SDG#: DE269-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9		1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9		1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.76 U	0.76	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.76 U	0.76	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.76 U	0.76	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.76 U	0.76	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.76 U	0.76	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	21		1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	21		1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.76 U	0.76	1.9		1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	21		1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	21		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	21		1
10138	Fluoranthene	206-44-0	0.76 U	0.76	1.9		1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76 U	0.76	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9		1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	21		1
10138	Phenanthrene	85-01-8	0.76 U	0.76	1.9		1
10138	Pyrene	129-00-0	0.76 U	0.76	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8		1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8		1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.8		1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0		1
10225	PCB-1221	11104-28-2	0.38 U	0.38	2.0		1
10225	PCB-1232	11141-16-5	0.38 U	0.38	2.0		1
10225	PCB-1242	53469-21-9	0.38 U	0.38	2.0		1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0		1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0		1
10225	PCB-1260	11096-82-5	0.45 U	0.45	2.0		1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0		1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	36,300	6.89	22.8		1
07914	Boron	7440-42-8	5.93	0.410	5.70		1
01650	Calcium	7440-70-2	14,200	2.85	22.8		1

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Analysis Report

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Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438622
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6905 SDG#: DE269-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	35,200	5.95	45.6		2
01656	Lithium	7439-93-2	31.4	0.71	2.3		1
01657	Magnesium	7439-95-4	8,110	0.501	11.4		1
06958	Manganese	7439-96-5	468	0.0410	0.570		1
10145	Phosphorus	7723-14-0	152	0.399	11.4		1
01662	Potassium	7440-09-7	3,700	12.7	56.4		1
01667	Sodium	7440-23-5	166	6.71	113		1
07968	Strontium	7440-24-6	66.2	0.0285	0.570		1
06969	Tin	7440-31-5	2.87 J	0.365	11.4		1
06970	Titanium	7440-32-6	1,620	0.0809	1.14		1
10146	Zirconium	7440-67-7	4.87 J	0.524	5.70		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.308	0.0835	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	6.69	0.0903	0.451		2
06126	Barium	7440-39-3	179	0.120	0.451		2
06127	Beryllium	7440-41-7	1.01	0.0181	0.113		2
06128	Cadmium	7440-43-9	0.155	0.0496	0.113		2
06131	Chromium	7440-47-3	38.9	0.135	0.451		2
06132	Cobalt	7440-48-4	12.8	0.0226	0.113		2
06133	Copper	7440-50-8	17.2	0.0903	0.451		2
06135	Lead	7439-92-1	11.3	0.0115	0.226		2
06138	Molybdenum	7439-98-7	0.524	0.0564	0.113		2
06139	Nickel	7440-02-0	23.4	0.113	0.451		2
06141	Selenium	7782-49-2	0.142 J	0.0654	0.451		2
06142	Silver	7440-22-4	0.0479 J	0.0160	0.113		2
06145	Thallium	7440-28-0	0.482	0.0338	0.113		2
06148	Vanadium	7440-62-2	77.7	0.0248	0.113		2
06149	Zinc	7440-66-6	84.3	0.632	3.38		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0079 U	0.0079	0.112		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.7	0.92	1.2		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.31 J	0.23	1.2		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438622
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6905 SDG#: DE269-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.29	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	13.1	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	11291SLD026	10/21/2011 08:21	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/22/2011 00:11	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113010003A	11/02/2011 05:02	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	2	113010003A	10/28/2011 18:15	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 20:29	John P Hook	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 20:33	John P Hook	2
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 11:07	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 11:07	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:21	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 08:06	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438622
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6905 SDG#: DE269-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 08:06	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 08:06	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 08:06	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 10:04	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201A	10/27/2011 13:32	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 17:08	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11292243201A	10/20/2011 18:19	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201A	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402A	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438623
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6906 SDG#: DE269-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	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	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	78	U 78	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	2,4-Dimethylphenol	105-67-9	39	U 39	190		1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580		1
04688	2,4-Dinitrophenol	51-28-5	390	U 390	1,200		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	27	J 19	390		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	78	U 78	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	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
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

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Analysis Report

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Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438623
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6906 SDG#: DE269-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	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	ug/kg	
10138	Acenaphthene	83-32-9	0.79	U 0.79	2.0		1
10138	Acenaphthylene	208-96-8	0.39	U 0.39	2.0		1
10138	Anthracene	120-12-7	0.39	U 0.39	2.0		1
10138	Benzo(a)anthracene	56-55-3	0.79	U 0.79	2.0		1
10138	Benzo(a)pyrene	50-32-8	0.79	U 0.79	2.0		1
10138	Benzo(b)fluoranthene	205-99-2	0.79	U 0.79	2.0		1
10138	Benzo(g,h,i)perylene	191-24-2	0.79	U 0.79	2.0		1
10138	Benzo(k)fluoranthene	207-08-9	0.79	U 0.79	2.0		1
10138	Butylbenzylphthalate	85-68-7	7.1	U 7.1	21		1
10138	Di-n-butylphthalate	84-74-2	7.1	U 7.1	21		1
10138	Chrysene	218-01-9	0.39	U 0.39	2.0		1
10138	Dibenz(a,h)anthracene	53-70-3	0.79	U 0.79	2.0		1
10138	Diethylphthalate	84-66-2	7.1	U 7.1	21		1
10138	Dimethylphthalate	131-11-3	7.1	U 7.1	21		1
10138	Fluoranthene	206-44-0	0.79	U 0.79	2.0		1
10138	Fluorene	86-73-7	0.79	U 0.79	2.0		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.79	U 0.79	2.0		1
10138	1-Methylnaphthalene	90-12-0	0.79	U 0.79	2.0		1
10138	2-Methylnaphthalene	91-57-6	0.79	U 0.79	2.0		1
10138	Naphthalene	91-20-3	0.79	U 0.79	2.0		1
10138	N-Nitrosodimethylamine	62-75-9	0.79	U 0.79	2.0		1
10138	Di-n-octylphthalate	117-84-0	7.1	U 7.1	21		1
10138	Phenanthrene	85-01-8	0.79	U 0.79	2.0		1
10138	Pyrene	129-00-0	0.79	U 0.79	2.0		1
Pesticides/PCBs	SW-846 8082		ug/kg	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	0.39	U 0.39	2.0		1
10225	PCB-1232	11141-16-5	0.39	U 0.39	2.0		1
10225	PCB-1242	53469-21-9	0.39	U 0.39	2.0		1
10225	PCB-1248	12672-29-6	0.39	U 0.39	2.0		1
10225	PCB-1254	11097-69-1	0.39	U 0.39	2.0		1
10225	PCB-1260	11096-82-5	0.46	U 0.46	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	mg/kg	
01643	Aluminum	7429-90-5	40,000	6.94	23.0		1
07914	Boron	7440-42-8	7.06	0.413	5.74		1
01650	Calcium	7440-70-2	8,540	2.87	23.0		1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438623
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6906 SDG#: DE269-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	40,800	5.99	45.9		2
01656	Lithium	7439-93-2	37.5	0.71	2.3		1
01657	Magnesium	7439-95-4	10,200	0.505	11.5		1
06958	Manganese	7439-96-5	277	0.0413	0.574		1
10145	Phosphorus	7723-14-0	240	0.402	11.5		1
01662	Potassium	7440-09-7	4,230	13.0	57.4		1
01667	Sodium	7440-23-5	240	6.83	115		1
07968	Strontium	7440-24-6	65.8	0.0287	0.574		1
06969	Tin	7440-31-5	3.17 J	0.367	11.5		1
06970	Titanium	7440-32-6	1,570	0.0815	1.15		1
10146	Zirconium	7440-67-7	4.87 J	0.528	5.74		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.378	0.0858	0.232		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	8.96	0.0927	0.464		2
06126	Barium	7440-39-3	199	0.123	0.464		2
06127	Beryllium	7440-41-7	1.27	0.0185	0.116		2
06128	Cadmium	7440-43-9	0.0708 J	0.0510	0.116		2
06131	Chromium	7440-47-3	47.6	0.139	0.464		2
06132	Cobalt	7440-48-4	17.6	0.0232	0.116		2
06133	Copper	7440-50-8	25.8	0.0927	0.464		2
06135	Lead	7439-92-1	13.9	0.0118	0.232		2
06138	Molybdenum	7439-98-7	0.872	0.0579	0.116		2
06139	Nickel	7440-02-0	30.5	0.116	0.464		2
06141	Selenium	7782-49-2	0.172 J	0.0672	0.464		2
06142	Silver	7440-22-4	0.0232 J	0.0165	0.116		2
06145	Thallium	7440-28-0	0.594	0.0348	0.116		2
06148	Vanadium	7440-62-2	96.5	0.0255	0.116		2
06149	Zinc	7440-66-6	109	0.649	3.48		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0079 U	0.0079	0.112		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	11.8	0.96	1.2		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.6 U	10.6	35.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 U	0.24	1.2		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438623
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6906 SDG#: DE269-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.30	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	15.4	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	11291SLD026	10/21/2011 08:47	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/22/2011 00:44	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113010003A	11/02/2011 05:21	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	2	113010003A	10/28/2011 18:15	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 20:37	John P Hook	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 20:42	John P Hook	2
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 11:11	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 11:11	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:27	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 08:09	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438623
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6906 SDG#: DE269-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 08:09	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 08:09	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 08:09	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 10:05	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201A	10/27/2011 13:47	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 17:54	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201A	10/20/2011 18:26	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201A	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402A	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438624
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6907 SDG#: DE269-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 2 of 5

Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438624
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6907 SDG#: DE269-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	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	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8		1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8		1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19		1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19		1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8		1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19		1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.1 J	6.4	19		1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8		1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8		1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19		1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8		1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9		1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9		1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9		1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9		1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,200	6.48	21.4		1
07914	Boron	7440-42-8	0.385 U	0.385	5.35		1
01650	Calcium	7440-70-2	34,600	2.68	21.4		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438624
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6907 SDG#: DE269-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	27,200	2.79	21.4		1
01656	Lithium	7439-93-2	28.9	0.66	2.1		1
01657	Magnesium	7439-95-4	6,980	0.471	10.7		1
06958	Manganese	7439-96-5	328	0.0385	0.535		1
10145	Phosphorus	7723-14-0	573	0.375	10.7		1
01662	Potassium	7440-09-7	3,760	12.2	54.0		1
01667	Sodium	7440-23-5	135	6.43	108		1
07968	Strontium	7440-24-6	60.3	0.0268	0.535		1
06969	Tin	7440-31-5	2.50 J	0.342	10.7		1
06970	Titanium	7440-32-6	1,300	0.0760	1.07		1
10146	Zirconium	7440-67-7	4.26 J	0.492	5.35		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.188 J	0.0808	0.218		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.74	0.0873	0.437		2
06126	Barium	7440-39-3	116	0.116	0.437		2
06127	Beryllium	7440-41-7	0.688	0.0175	0.109		2
06128	Cadmium	7440-43-9	0.194	0.0480	0.109		2
06131	Chromium	7440-47-3	33.6	0.131	0.437		2
06132	Cobalt	7440-48-4	10.6	0.0218	0.109		2
06133	Copper	7440-50-8	13.1	0.0873	0.437		2
06135	Lead	7439-92-1	8.01	0.0111	0.218		2
06138	Molybdenum	7439-98-7	0.443	0.0546	0.109		2
06139	Nickel	7440-02-0	17.9	0.109	0.437		2
06141	Selenium	7782-49-2	0.199 J	0.0633	0.437		2
06142	Silver	7440-22-4	0.0220 J	0.0155	0.109		2
06145	Thallium	7440-28-0	0.305	0.0328	0.109		2
06148	Vanadium	7440-62-2	65.0	0.0240	0.109		2
06149	Zinc	7440-66-6	68.8	0.611	3.28		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6	0.87	1.1		1
		EPA 314.0	ug/kg	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	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.22	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438624
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6907 SDG#: DE269-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.42	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	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	11291SLD026	10/21/2011 09:12	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/22/2011 01:17	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113010003A	11/02/2011 05:40	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	2	113010003A	10/28/2011 18:15	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 11:15	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 11:15	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:31	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 08:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438624
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6907 SDG#: DE269-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 08:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 08:18	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 08:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 10:06	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201A	10/27/2011 14:02	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 18:17	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11292243201A	10/20/2011 18:48	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201A	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402B	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438625
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6908 SDG#: DE269-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1

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Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438625
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6908 SDG#: DE269-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	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	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8		1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8		1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19		1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19		1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8		1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19		1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.0 J	6.5	19		1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8		1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8		1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19		1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8		1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8		1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8		1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8		1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8		1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8		1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,500	6.46	21.4		1
07914	Boron	7440-42-8	0.385 U	0.385	5.34		1
01650	Calcium	7440-70-2	7,550	2.67	21.4		1

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Analysis Report

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Page 3 of 5

Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438625
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6908 SDG#: DE269-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	27,100	2.79	21.4		1
01656	Lithium	7439-93-2	23.3	0.66	2.1		1
01657	Magnesium	7439-95-4	5,830	0.470	10.7		1
06958	Manganese	7439-96-5	363	0.0385	0.534		1
10145	Phosphorus	7723-14-0	440	0.374	10.7		1
01662	Potassium	7440-09-7	2,800	11.8	52.4		1
01667	Sodium	7440-23-5	120	6.23	105		1
07968	Strontium	7440-24-6	38.0	0.0267	0.534		1
06969	Tin	7440-31-5	2.73 J	0.342	10.7		1
06970	Titanium	7440-32-6	1,340	0.0758	1.07		1
10146	Zirconium	7440-67-7	6.16	0.491	5.34		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.221	0.0775	0.209		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	6.82	0.0838	0.419		2
06126	Barium	7440-39-3	117	0.111	0.419		2
06127	Beryllium	7440-41-7	0.794	0.0168	0.105		2
06128	Cadmium	7440-43-9	0.146	0.0461	0.105		2
06131	Chromium	7440-47-3	40.4	0.126	0.419		2
06132	Cobalt	7440-48-4	10.0	0.0209	0.105		2
06133	Copper	7440-50-8	10.6	0.0838	0.419		2
06135	Lead	7439-92-1	8.06	0.0107	0.209		2
06138	Molybdenum	7439-98-7	0.530	0.0524	0.105		2
06139	Nickel	7440-02-0	18.8	0.105	0.419		2
06141	Selenium	7782-49-2	0.122 J	0.0607	0.419		2
06142	Silver	7440-22-4	0.0413 J	0.0149	0.105		2
06145	Thallium	7440-28-0	0.303	0.0314	0.105		2
06148	Vanadium	7440-62-2	72.6	0.0230	0.105		2
06149	Zinc	7440-66-6	64.9	0.587	3.14		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.9	0.86	1.1		1
		EPA 314.0	ug/kg	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	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 J	0.21	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

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Analysis Report

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Page 4 of 5

Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438625
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6908 SDG#: DE269-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.41	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.3	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11291SLD026	10/21/2011 09:37	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/22/2011 01:50	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113010003A	11/02/2011 05:59	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	2	113010003A	10/28/2011 18:15	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 11:19	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 11:19	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:36	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 08:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438625
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6908 SDG#: DE269-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 08:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 08:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 08:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 10:08	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201A	10/27/2011 14:17	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 18:40	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11292243201A	10/20/2011 19:02	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201A	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402B	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438626
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6909 SDG#: DE269-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	16.9 U	16.9	33.8		1
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400		1
04688	Benzoic acid	65-85-0	170	U 170	510		1
04688	Benzyl alcohol	100-51-6	170	U 170	510		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170		1
04688	4-Chloroaniline	106-47-8	68	U 68	170		1
04688	bis (2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis (2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis (2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170		1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510		1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	34	U 34	170		1
04688	4-Methylphenol	106-44-5	34	U 34	170		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	34	U 34	170		1
04688	4-Nitroaniline	100-01-6	68	U 68	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	510		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1

*=This limit was used in the evaluation of the final result

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Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438626
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6909 SDG#: DE269-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510		1
04688	Phenol	108-95-2	17	J 17	170		1
04688	Tetralin	119-64-2	170	U 170	170		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170		1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.68	U 0.68	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.77	J 0.68	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	1.5	J 0.68	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.68	U 0.68	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	4.3	U 0.68	1.7		1
10138	Butylbenzylphthalate	85-68-7	19	6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	1.3	J 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	75	6.1	18		1
10138	Fluoranthene	206-44-0	2.1	0.68	1.7		1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7		1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	0.97	J 0.68	1.7		1
10138	Pyrene	129-00-0	1.6	J 0.68	1.7		1
Explosives	SW-846 8330A		ug/kg	ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	60	U 60	120	1000000 0	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	40	U 40	120	1000000 0	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	80	U 80	240	1000000 0	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	80	U 80	240	1000000 0	1

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Analysis Report

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Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438626
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6909 SDG#: DE269-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/kg	ug/kg	ug/kg	ug/kg	
10132	1,3-Dinitrobenzene	99-65-0	40 U	40	120	1000000 0	1
10132	2,4-Dinitrotoluene	121-14-2	40 U	40	120	1000000 0	1
10132	2,6-Dinitrotoluene	606-20-2	40 U	40	120	1000000 0	1
10132	HMX	2691-41-0	100 U	100	300	1000000 0	1
10132	Nitrobenzene	98-95-3	40 U	40	120	1000000 0	1
10132	Nitroglycerin	55-63-0	800 U	800	2,400	1000000 0	1
10132	2-Nitrotoluene	88-72-2	80 U	80	120	1000000 0	1
10132	3-Nitrotoluene	99-08-1	100 U	100	120	1000000 0	1
10132	4-Nitrotoluene	99-99-0	80 U	80	120	1000000 0	1
10132	PETN	78-11-5	800 U	800	2,400	1000000 0	1
10132	RDX	121-82-4	50 U	50	120	1000000 0	1
10132	Tetryl	479-45-8	61 U	61	120	1000000 0	1
10132	1,3,5-Trinitrobenzene	99-35-4	40 U	40	120	1000000 0	1
10132	2,4,6-Trinitrotoluene	118-96-7	40 U	40	120	1000000 0	1
HPLC Organics		SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	610 U	610	1,500		1
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4		1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7		1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7		1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7		1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7		1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7		1
10225	PCB-1254	11097-69-1	0.80 J	0.34	1.7		1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.7		1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7		1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	510		1
10501	Isopropanol	67-63-0	100 U	100	510		1

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Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438626
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/15/2011 09:45

Reported: 11/09/2011 11:09

E6909 SDG#: DE269-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	ug/kg	
10501	Methanol	67-56-1	100	U	100	510		1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.1	U	5.1	10		1
08283	Ethylene glycol	107-21-1	5.1	U	5.1	10		1
08283	Propylene glycol	57-55-6	5.1	U	5.1	10		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.5	U	1.5	3.6		1
10318	o-Terphenyl	84-15-1	1.5	U	1.5	3.6		1
10318	p-Terphenyl	92-94-4	1.5	U	1.5	3.6		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.41	U	0.41	1.2		1
10199	EFH (C15-C20)	n.a.	2.9		0.41	1.2		1
10199	EFH (C21-C30)	n.a.	19		0.41	1.2		1
10199	EFH (C30 - C40)	n.a.	28		0.41	1.2		1
10199	EFH (C8-C11)	n.a.	1.6		0.41	1.2		1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,600		6.06	20.0		1
07914	Boron	7440-42-8	0.361	U	0.361	5.01		1
01650	Calcium	7440-70-2	3,260		2.50	20.0		1
01654	Iron	7439-89-6	21,200		2.61	20.0		1
01656	Lithium	7439-93-2	20.9		0.62	2.0		1
01657	Magnesium	7439-95-4	5,890		0.441	10.0		1
06958	Manganese	7439-96-5	293		0.0361	0.501		1
10145	Phosphorus	7723-14-0	376		0.350	10.0		1
01662	Potassium	7440-09-7	1,980		11.5	51.1		1
01667	Sodium	7440-23-5	73.0	J	6.08	102		1
07968	Strontium	7440-24-6	14.1		0.0250	0.501		1
06969	Tin	7440-31-5	2.45	J	0.320	10.0		1
06970	Titanium	7440-32-6	1,170		0.0711	1.00		1
10146	Zirconium	7440-67-7	0.552	J	0.461	5.01		1
		SW-846 6020	mg/kg		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.117	J	0.0741	0.200		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	4.58		0.0801	0.401		2
06126	Barium	7440-39-3	88.2		0.106	0.401		2
06127	Beryllium	7440-41-7	0.573		0.0160	0.100		2
06128	Cadmium	7440-43-9	0.0866	J	0.0441	0.100		2

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Analysis Report

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Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438626
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6909 SDG#: DE269-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06131	Chromium	7440-47-3	22.4	0.120	0.401		2
06132	Cobalt	7440-48-4	6.94	0.0200	0.100		2
06133	Copper	7440-50-8	10.1	0.0801	0.401		2
06135	Lead	7439-92-1	5.70	0.0102	0.200		2
06138	Molybdenum	7439-98-7	0.478	0.0501	0.100		2
06139	Nickel	7440-02-0	16.0	0.100	0.401		2
06141	Selenium	7782-49-2	0.201 J	0.0581	0.401		2
06142	Silver	7440-22-4	0.0314 J	0.0142	0.100		2
06145	Thallium	7440-28-0	0.249	0.0300	0.100		2
06148	Vanadium	7440-62-2	41.3	0.0220	0.100		2
06149	Zinc	7440-66-6	62.3	0.561	3.00		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0107 J	0.0070	0.0992		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.7	0.81	1.0		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	3.5	0.81	1.5		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.6		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.27 J	0.20	1.0		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.18 U	0.18	0.51		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.47	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	2.1	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.

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Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438626
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6909 SDG#: DE269-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11291SLG026	11/02/2011 01:36	Matthew S Woods	1
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11291SLD026	10/21/2011 10:02	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11291SLE026	10/22/2011 02:23	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11291SLG026	10/19/2011 06:50	Katheryne V Sponheimer	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11291SLE026	10/18/2011 21:35	Karen L Beyer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10132	15a Energetics by 8330A	SW-846 8330A	1	112880015A	10/21/2011 10:19	James H Place	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112910003A	10/19/2011 22:25	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113010003A	11/02/2011 06:18	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	2	113010003A	10/28/2011 18:15	Sally L Appleyard	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112910003A	10/18/2011 16:00	Wanda F Oswald	1
11137	Energetics Extraction	SW-846 8330	1	112880015A	10/17/2011 17:00	Kelli M Barto	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112900028A	10/18/2011 22:51	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/25/2011 23:29	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112920028A	10/21/2011 21:15	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112920027A	10/21/2011 06:26	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112920027A	10/20/2011 12:00	Olivia I Santiago	1
10303	Terphenyls soil prep	SW-846 3550B	1	112920028A	10/20/2011 12:00	Olivia I Santiago	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112900028A	10/18/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	112905708002	10/25/2011 20:46	John P Hook	1
01650	Calcium	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	112985708002	10/26/2011 11:22	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112985708002	10/26/2011 11:22	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112905708002	10/25/2011 03:47	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112901026001D	10/18/2011 08:24	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438626
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6909 SDG#: DE269-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06133	Copper	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112901026001C	10/18/2011 08:24	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112901026001B	10/18/2011 08:24	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112901026001A	10/18/2011 08:24	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112905711002	10/18/2011 10:09	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112905708002	10/17/2011 22:40	Annamaria Stipkovits	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112985708002	10/25/2011 22:27	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112901026001	10/17/2011 22:42	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112905711002	10/18/2011 02:05	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 15:18	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11299621201B	10/27/2011 15:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621201B	10/20/2011 19:04	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201A	10/20/2011 19:09	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11293102201B	10/21/2011 08:16	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621201B	10/20/2011 06:30	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11293102201B	10/20/2011 15:35	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11299039402B	10/26/2011 15:00	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: EB-SA3-SB-101411 Water
SSFL Area IV Collocated Soil Sampling
EB-SA3-SB-101411

LLI Sample # WW 6438627
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6910 SDG#: DE269-10EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	1.20	0.492	0.984		1
N-Nitrosodimethylamine was detected in the method blank at a concentration of 1.33 ng/l. The blank value was not subtracted from the analytical result. Sufficient sample was unavailable to repeat the analysis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11290WAA026	11/01/2011 18:19	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11290WAA026	10/17/2011 13:55	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: TB-101411 Water
SSFL Area IV Collocated Soil Sampling
TB-101411

LLI Sample # WW 6438628
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 11/09/2011 11:09

Chantilly VA 20151

E6911 SDG#: DE269-11TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	3.99	0.533	1.07		1
N-Nitrosodimethylamine was detected in the method blank at a concentration of 1.33 ng/l. The blank value was not subtracted from the analytical result. Sufficient sample was unavailable to repeat the analysis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11290WAA026	11/01/2011 18:38	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11290WAA026	10/17/2011 13:55	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-101411 Sand
SSFL Area IV Collocated Soil Sampling
TB-101411

LLI Sample # SW 6438629
LLI Group # 1271484
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 08:00

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 11/09/2011 11:09

Suite 210

Chantilly VA 20151

E6912 SDG#: DE269-12TB*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles	EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	16.7 U	16.7	33.3		1
Wet Chemistry	EPA 160.3 modified		%	%	%	%	
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11291SLG026	11/02/2011 01:55	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	1	11291SLG026	10/19/2011 06:50	Katheryne V Sponheimer	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11290WAA026 N-Nitrosodimethylamine	Sample number(s): 6438627-6438628 1.33	0.500	1.00	ng/l	101	107	70-130	6	30
Batch number: 11291SLD026 Aniline	Sample number(s): 6438618-6438626 170 U	170.	500	ug/kg	68		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	57		15-121		
Benzoic acid	170 U	170.	500	ug/kg	65		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	91		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	101		73-114		
Carbazole	17 U	17.	170	ug/kg	99		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	97		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	47		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	94		70-118		
bis(2-Chloroethyl) ether	17 U	17.	170	ug/kg	90		70-104		
bis(2-Chloroisopropyl) ether	17 U	17.	170	ug/kg	91		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	94		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	96		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	97		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	94		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	89		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	89		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	89		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	43		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	99		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	97		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	119		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	47		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	26		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	96		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	101		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	102		71-125		
bis(2-Ethylhexyl) phthalate	17 U	17.	330	ug/kg	97		75-117		
Hexachlorobenzene	17 U	17.	170	ug/kg	99		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	97		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	86		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	87		61-109		
Isophorone	17 U	17.	170	ug/kg	94		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	95		66-110		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

<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>
4-Methylphenol	33	U	33.	170	ug/kg	90		66-117		
2-Nitroaniline	17	U	17.	170	ug/kg	95		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	93		62-109		
4-Nitroaniline	67	U	67.	170	ug/kg	72		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	94		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	95		76-111		
4-Nitrophenol	170		170.	500	ug/kg	91		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	86		63-107		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	101		67-141		
Pentachlorophenol	170		170.	500	ug/kg	85		51-117		
	U									
Phenol	17	U	17.	170	ug/kg	95		58-112		
Tetralin	170		170.	170	ug/kg					
	U									
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	96		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	99		78-111		
Batch number: 11291SLE026 Sample number(s): 6438618-6438626										
Acenaphthene	0.67	U	0.67	1.7	ug/kg	94		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	91		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	96		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	99		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	95		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	96		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	105		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	99		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	87		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	92		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	103		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	107		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	93		68-125		
Dimethylphthalate	6.0	U	6.0	18	ug/kg	96		79-121		
Bis(2-Ethylhexyl)phthalate	6.0	U	6.0	18	ug/kg	106		67-143		
Fluoranthene	0.67	U	0.67	1.7	ug/kg	102		64-120		
Fluorene	0.67	U	0.67	1.7	ug/kg	101		71-120		
Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.7	ug/kg	105		56-134		
1-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	89		72-120		
2-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	88		62-120		
Naphthalene	0.67	U	0.67	1.7	ug/kg	91		67-120		
N-Nitrosodimethylamine	0.67	U	0.67	1.7	ug/kg	102		55-118		
Di-n-octylphthalate	6.0	U	6.0	18	ug/kg	98		68-162		
Phenanthrene	0.67	U	0.67	1.7	ug/kg	94		75-120		
Pyrene	0.67	U	0.67	1.7	ug/kg	89		72-119		
Batch number: 11291SLG026 Sample number(s): 6438626,6438629										
N-Nitrosodimethylamine	16.7	U	16.7	33.3	ng/kg	105		70-130		
Batch number: 112880015A Sample number(s): 6438626										
4-Amino-2,6-Dinitrotoluene	60	U	60.	120	ug/kg	109		80-120		
2-Amino-4,6-Dinitrotoluene	40	U	40.	120	ug/kg	106		80-120		
2,6-Diamino-4-nitrotoluene	80	U	80.	240	ug/kg	87	90	54-134	4	30
2,4-Diamino-6-nitrotoluene	80	U	80.	240	ug/kg	86	90	54-134	4	30
1,3-Dinitrobenzene	40	U	40.	120	ug/kg	110		51-171		
2,4-Dinitrotoluene	40	U	40.	120	ug/kg	101		72-135		
2,6-Dinitrotoluene	40	U	40.	120	ug/kg	106		80-120		
HMX	100		100.	300	ug/kg	93		74-130		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

<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>
Nitrobenzene	40	U	40.	120	ug/kg	106		80-120		
Nitroglycerin	800		800.	2,400	ug/kg	90		80-120		
2-Nitrotoluene	80	U	80.	120	ug/kg	101		78-128		
3-Nitrotoluene	100		100.	120	ug/kg	108		73-127		
4-Nitrotoluene	80	U	80.	120	ug/kg	101		80-120		
PETN	800		800.	2,400	ug/kg	104		80-120		
RDX	50	U	50.	120	ug/kg	102		75-131		
Tetryl	61	U	61.	120	ug/kg	96		70-168		
1,3,5-Trinitrobenzene	40	U	40.	120	ug/kg	104		77-137		
2,4,6-Trinitrotoluene	40	U	40.	120	ug/kg	108		80-120		
Batch number: 112910003A	Sample number(s): 6438626									
20a Formaldehyde 8315A	600		600.	1,500	ug/kg	91		80-126		
Batch number: 112910025A	Sample number(s): 6438618-6438619,6438621									
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	69	66	36-106	4	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	67*		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	85		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: 113010003A	Sample number(s): 6438620,6438622-6438626									
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	70	68	36-106	3	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	80		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	95		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					
Batch number: 112900028A	Sample number(s): 6438626									
Ethanol	100		100.	500	ug/kg	89		71-129		
Isopropanol	100		100.	500	ug/kg	86		75-125		
Methanol	100		100.	500	ug/kg	90		68-129		
Batch number: 112980042A	Sample number(s): 6438626									
Diethylene glycol	5.0	U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0	U	5.0	10	mg/kg	106		53-149		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

<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>
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 112920027A	Sample number(s): 6438626								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	94		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	96		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	97		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	85		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	83		49-107		
Batch number: 112920028A	Sample number(s): 6438626								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	100		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	105		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	98		69-109		
Batch number: 112901026001A	Sample number(s): 6438618-6438626								
Antimony	0.0740 U	0.0740	0.200	mg/kg	134		40-227		
Arsenic	0.0800 U	0.0800	0.400	mg/kg	101		83-111		
Beryllium	0.0160 U	0.0160	0.100	mg/kg	102		84-112		
Cadmium	0.0440 U	0.0440	0.100	mg/kg	105		83-111		
Chromium	0.120 U	0.120	0.400	mg/kg	111		77-123		
Cobalt	0.0200 U	0.0200	0.100	mg/kg	108		85-114		
Copper	0.0800 U	0.0800	0.400	mg/kg	104		81-110		
Lead	0.0102 U	0.0102	0.200	mg/kg	104		84-112		
Nickel	0.100 U	0.100	0.400	mg/kg	104		81-110		
Silver	0.0142 U	0.0142	0.100	mg/kg	102		83-112		
Thallium	0.0300 U	0.0300	0.100	mg/kg	103		82-112		
Vanadium	0.0220 U	0.0220	0.100	mg/kg	103		76-110		
Zinc	0.560 U	0.560	3.00	mg/kg	101		82-110		
Batch number: 112901026001B	Sample number(s): 6438618-6438626								
Selenium	0.0580 U	0.0580	0.400	mg/kg	102		79-110		
Batch number: 112901026001C	Sample number(s): 6438618-6438626								
Molybdenum	0.0500 U	0.0500	0.100	mg/kg	105		80-110		
Batch number: 112901026001D	Sample number(s): 6438618-6438626								
Barium	0.106 U	0.106	0.400	mg/kg	102		83-110		
Batch number: 112905708002	Sample number(s): 6438618-6438626								
Aluminum	6.05 U	6.05	20.0	mg/kg	99		40-127		
Boron	0.360 U	0.360	5.00	mg/kg	103		83-110		
Calcium	6.41 J	2.50	20.0	mg/kg	106		81-110		
Iron	2.61 U	2.61	20.0	mg/kg	101		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	102		80-120		
Magnesium	0.440 U	0.440	10.0	mg/kg	102		63-116		
Manganese	0.0360 U	0.0360	0.500	mg/kg	104		85-116		
Phosphorus	1.73 J	0.350	10.0	mg/kg	107		80-120		
Strontium	0.0510 J	0.0250	0.500	mg/kg	107		84-110		
Tin	1.44 J	0.320	10.0	mg/kg	104		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	93		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	104		80-120		
Batch number: 112905711002	Sample number(s): 6438618-6438626								
Mercury	0.0070 U	0.0070	0.100	mg/kg	105		83-119		
Batch number: 112985708002	Sample number(s): 6438618-6438626								
Potassium	11.3 U	11.3	50.0	mg/kg	100		71-110		
Sodium	5.95 U	5.95	100	mg/kg	101		76-110		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

<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: 11292243201A 3a Cr VI by EPA 7199	Sample number(s): 6438618-6438626 0.20 U 0.20	1.0	mg/kg	81			80-120		
Batch number: 11293102201B 16a Cyanide by 9012B	Sample number(s): 6438626 0.18 U 0.18	0.50	mg/kg	85			80-120		
Batch number: 11293621201B 7a Perchlorate EPA 314.0	Sample number(s): 6438618-6438626 9.0 U 9.0	30.0	ug/kg	108			85-115		
Batch number: 11299621201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6438618-6438625 0.80 U 0.80	1.0	mg/kg	104			90-110		
Batch number: 11299621201B 11a Anions by 300.0 - Fluoride	Sample number(s): 6438626 0.80 U 0.80	1.0	mg/kg	104			90-110		
Batch number: 11299621201B 11a Anions by 300.0 - Nitrate	0.80 U 0.80	1.5	mg/kg	106			90-110		
Batch number: 11299039402A 17a pH by 9045C	Sample number(s): 6438618-6438623			100			95-105		
Batch number: 11299039402B 17a pH by 9045C	Sample number(s): 6438624-6438626			100			95-105		
Batch number: 11298162402A Moisture Content by 160.3	Sample number(s): 6438618-6438626, 6438629			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: 11291SLD026	Sample number(s): 6438618-6438626 UNSPK: P439922								
Aniline	71	71	18-116	0	30				
Benzidine	46	46	35-141	1	30				
Benzoic acid	58	26	10-173	75*	30				
Benzyl alcohol	94	96	67-115	3	30				
4-Bromophenyl-phenylether	100	100	67-129	1	30				
Carbazole	98	97	64-120	0	30				
4-Chloro-3-methylphenol	99	98	62-122	0	30				
4-Chloroaniline	57	64	13-107	13	30				
bis(2-Chloroethoxy)methane	95	96	75-104	2	30				
bis(2-Chloroethyl)ether	90	92	60-116	2	30				
bis(2-Chloroisopropyl)ether	91	91	55-142	1	30				
2-Chloronaphthalene	67	93	50-141	34*	30				
2-Chlorophenol	97	99	73-121	3	30				
4-Chlorophenyl-phenylether	99	99	80-109	1	30				
Dibenzofuran	95	95	71-112	1	30				
1,2-Dichlorobenzene	88	88	66-108	1	30				
1,3-Dichlorobenzene	88	88	63-109	0	30				
1,4-Dichlorobenzene	88	88	58-108	1	30				
3,3'-Dichlorobenzidine	47	52	28-109	11	30				
2,4-Dichlorophenol	102	101	66-123	1	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2,4-Dimethylphenol	99	98	68-118	0	30				
3,5-Dimethylphenol	111	118	71-127	8	30				
4,6-Dinitro-2-methylphenol	63	18	11-126	112*	30				
2,4-Dinitrophenol	33	12*	20-143	93*	30				
2,4-Dinitrotoluene	98	98	56-129	1	30				
2,6-Dinitrotoluene	101	102	69-123	2	30				
1,2-Diphenylhydrazine	100	100	71-129	1	30				
bis(2-Ethylhexyl)phthalate	98	97	63-122	1	30				
Hexachlorobenzene	98	98	77-114	1	30				
Hexachlorobutadiene	95	96	62-120	2	30				
Hexachlorocyclopentadiene	80	80	10-153	2	30				
Hexachloroethane	87	85	57-109	1	30				
Isophorone	95	95	73-102	1	30				
2-Methylphenol	97	98	75-111	2	30				
4-Methylphenol	93	94	59-123	2	30				
2-Nitroaniline	99	100	67-125	2	30				
3-Nitroaniline	95	95	59-122	1	30				
4-Nitroaniline	76	75	41-109	0	30				
Nitrobenzene	94	95	57-125	2	30				
2-Nitrophenol	95	96	56-127	2	30				
4-Nitrophenol	93	89	37-129	3	30				
N-Nitroso-di-n-propylamine	87	88	60-116	2	30				
N-Nitrosodiphenylamine	101	100	71-122	0	30				
Pentachlorophenol	89	64	28-127	32*	30				
Phenol	94	98	58-126	5	30				
1,2,4-Trichlorobenzene	93	94	72-115	2	30				
2,4,5-Trichlorophenol	100	99	58-129	0	30				
2,4,6-Trichlorophenol	99	99	56-134	1	30				
Batch number: 11291SLE026 Sample number(s): 6438618-6438626 UNSPK: 6438618									
Acenaphthene	99	97	63-105	3	30				
Acenaphthylene	93	93	67-114	0	30				
Anthracene	100	100	73-115	1	30				
Benzo(a)anthracene	105	103	59-128	2	30				
Benzo(a)pyrene	97	96	58-142	0	30				
Benzo(b)fluoranthene	102	103	54-163	1	30				
Benzo(g,h,i)perylene	110	64	33-141	53*	30				
Benzo(k)fluoranthene	97	102	57-153	4	30				
Butylbenzylphthalate	100	97	57-173	3	30				
Di-n-butylphthalate	97	94	65-148	3	30				
Chrysene	107	105	67-123	2	30				
Dibenz(a,h)anthracene	112	74	22-133	41*	30				
Diethylphthalate	96	95	70-136	1	30				
Dimethylphthalate	101	102	74-118	0	30				
Bis(2-Ethylhexyl)phthalate	110	110	39-167	0	30				
Fluoranthene	109	106	51-149	3	30				
Fluorene	101	101	66-122	1	30				
Indeno(1,2,3-cd)pyrene	110	69	21-143	47*	30				
1-Methylnaphthalene	89	91	72-123	1	30				
2-Methylnaphthalene	89	90	64-103	1	30				
Naphthalene	90	92	61-102	1	30				
N-Nitrosodimethylamine	105	105	48-113	0	30				
Di-n-octylphthalate	90	87	40-192	4	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Phenanthrene	98	96	62-122	2	30			
Pyrene	93	90	51-131	4	30			
Batch number: 11291SLG026	Sample number(s): 6438626, 6438629 UNSPK: P437195							
N-Nitrosodimethylamine	97	95	70-130	2	30			
Batch number: 112880015A	Sample number(s): 6438626 UNSPK: P437195							
4-Amino-2,6-Dinitrotoluene	107	110	80-127	3	50			
2-Amino-4,6-Dinitrotoluene	104	107	80-137	2	50			
1,3-Dinitrobenzene	108	110	38-166	2	50			
2,4-Dinitrotoluene	98	102	80-131	3	50			
2,6-Dinitrotoluene	104	108	80-127	3	50			
HMX	92	93	63-128	1	50			
Nitrobenzene	102	105	80-125	4	50			
Nitroglycerin	99	99	80-120	0	50			
2-Nitrotoluene	99	103	80-122	4	50			
3-Nitrotoluene	105	109	72-119	3	50			
4-Nitrotoluene	99	102	80-125	3	50			
PETN	106	108	80-121	2	50			
RDX	98	99	75-129	1	50			
Tetryl	89	86	55-174	4	50			
1,3,5-Trinitrobenzene	99	101	82-126	2	50			
2,4,6-Trinitrotoluene	104	107	82-130	3	50			
Batch number: 112910003A	Sample number(s): 6438626 UNSPK: P437195							
20a Formaldehyde 8315A	98	104	80-120	6	50			
Batch number: 112910025A	Sample number(s): 6438618-6438619, 6438621 UNSPK: P437195							
PCB-1016	65	65	29-146	0	50			
PCB-1260	79	84	39-149	7	50			
Batch number: 113010003A	Sample number(s): 6438620, 6438622-6438626 UNSPK: P437195							
PCB-1016	80	81	29-146	1	50			
PCB-1260	86	87	39-149	1	50			
Batch number: 112900028A	Sample number(s): 6438626 UNSPK: P437195							
Ethanol	75	73	48-130	2	20			
Isopropanol	72	71	12-149	1	20			
Methanol	75	72	43-138	3	20			
Batch number: 112980042A	Sample number(s): 6438626 UNSPK: P437195							
Diethylene glycol	47*	48*	59-109	3	20			
Ethylene glycol	75	75	63-107	1	20			
Propylene glycol	77	78	63-107	0	20			
Batch number: 112920027A	Sample number(s): 6438626 UNSPK: P437195							
EFH (C12-C14)	82	89	49-123	8	20			
EFH (C15-C20)	81	98	49-123	13	20			
EFH (C21-C30)	102	117	49-123	7	20			
EFH (C30 - C40)	110	138*	49-123	8	20			
EFH (C8-C11)	0*	5*	49-123	10	20			
Batch number: 112920028A	Sample number(s): 6438626 UNSPK: P437195							

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
m-Terphenyl	97	98	75-125	2	20			
o-Terphenyl	102	103	75-125	1	20			
p-Terphenyl	95	97	75-125	2	20			
Batch number: 112901026001A	Sample number(s): 6438618-6438626 UNSPK: P437195 BKG: P437195							
Antimony	39*	43*	75-125	8	20	0.135 J	0.126 J	7 (1) 20
Arsenic	101	108	75-125	3	20	3.78	3.79	0 20
Beryllium	91	102	75-125	8	20	0.484	0.538	11 (1) 20
Cadmium	111	108	75-125	2	20	0.0714 J	0.0880 J	21* (1) 20
Chromium	95	120	75-125	9	20	17.3	20.5	17 20
Cobalt	105	108	75-125	3	20	5.76	6.25	8 20
Copper	107	116	75-125	5	20	8.35	10.0	18 20
Lead	119	146*	75-125	10	20	4.54	5.21	14 20
Nickel	112	117	75-125	3	20	11.5	13.8	18 20
Silver	103	110	75-125	7	20	0.0337 J	0.0284 J	17 (1) 20
Thallium	104	122	75-125	11	20	0.244	0.284	15 (1) 20
Vanadium	99	137*	75-125	8	20	34.2	40.9	18 20
Zinc	111 (2)	145 (2)	75-125	5	20	55.0	64.0	15 20
Batch number: 112901026001B	Sample number(s): 6438618-6438626 UNSPK: P437195 BKG: P437195							
Selenium	103	118	75-125	13	20	0.162 J	0.153 J	6 (1) 20
Batch number: 112901026001C	Sample number(s): 6438618-6438626 UNSPK: P437195 BKG: P437195							
Molybdenum	104	111	75-125	7	20	0.266	0.289	8 (1) 20
Batch number: 112901026001D	Sample number(s): 6438618-6438626 UNSPK: P437195 BKG: P437195							
Barium	138 (2)	141 (2)	75-125	0	20	85.0	93.7	10 20
Batch number: 112905708002	Sample number(s): 6438618-6438626 UNSPK: P437195 BKG: P437195							
Aluminum	2054 (2)	1557 (2)	75-125	6	20	12,500	12,700	2 20
Boron	103	102	84-115	0	20	1.03 J	0.806 J	25* (1) 20
Calcium	156 (2)	118 (2)	75-125	4	20	3,410	3,450	1 20
Iron	2305 (2)	15740 (2)	75-125	45*	20	20,200	20,700	2 20
Lithium	101	98	82-114	2	20	27.6	28.3	3 20
Magnesium	398 (2)	211 (2)	75-125	5	20	6,060	6,060	0 20
Manganese	45 (2)	74 (2)	75-125	4	20	299	276	8 20
Phosphorus	86 (2)	91 (2)	75-125	1	20	435	405	7 20
Strontium	100	98	75-115	1	20	12.6	12.1	4 20
Tin	90	89	80-110	0	20	2.61 J	2.45 J	6 (1) 20
Titanium	307 (2)	281 (2)	75-125	2	20	1,210	1,180	2 20
Zirconium	97	97	81-110	1	20	0.897 J	1.34 J	40* (1) 20
Batch number: 112905711002	Sample number(s): 6438618-6438626 UNSPK: P437195 BKG: P437195							
Mercury	101	99	65-135	4	20	0.0068 J	0.0069 U	200* (1) 20
Batch number: 112985708002	Sample number(s): 6438618-6438626 UNSPK: P437195 BKG: P437195							
Potassium	128*	119	75-125	3	20	2,360	2,410	2 20
Sodium	99	97	75-125	4	20	118	115	3 (1) 20
Batch number: 11292243201A	Sample number(s): 6438618-6438626 UNSPK: P437195 BKG: P437195							
3a Cr VI by EPA 7199	89		75-125			0.20 U	1.3	200* (1) 20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

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: 11293102201B 16a Cyanide by 9012B	Sample number(s): 6438626 99		75-125	UNSPK: P437195		0.18	U 0.18	U 0 (1)	20
Batch number: 11293621201B 7a Perchlorate EPA 314.0	Sample number(s): 6438618-6438626 109		80-120	UNSPK: 6438618		9.0	U 9.0	U 0 (1)	15
Batch number: 11299621201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6438618-6438625 38*		80-120	UNSPK: P435696		1.5	1.5	2 (1)	20
Batch number: 11299621201B 11a Anions by 300.0 - Fluoride	Sample number(s): 6438626 62*		80-120	UNSPK: P439922		4.3	4.4	1 (1)	20
11a Anions by 300.0 - Nitrate	102		80-120			1.3	J 1.4	J 6 (1)	20
Batch number: 11299039402A 17a pH by 9045C	Sample number(s): 6438618-6438623 8.55			BKG: P435690			8.53	0	3
Batch number: 11299039402B 17a pH by 9045C	Sample number(s): 6438624-6438626 7.86			BKG: P437195			7.90	1	3
Batch number: 11298162402A Moisture Content by 160.3	Sample number(s): 6438618-6438626, 6438629 15.4			BKG: 6438623			15.6	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 21b. NDMA in Water
Batch number: 11290WAA026
N-Nitrosodimethylamine-
d6

6438627	117
6438628	149
Blank	102
LCS	101
LCSD	98

Limits: 50-150

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11291SLD026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6438618	86	92	80	87	87	84
6438619	89	94	82	91	90	84
6438620	85	90	77	86	83	85
6438621	87	92	70	87	84	82
6438622	82	87	70	83	81	82

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

Surrogate Quality Control

6438623	86	91	69	87	84	85
6438624	89	96	72	90	89	86
6438625	90	96	62	87	88	87
6438626	93	96	79	88	89	84
Blank	88	93	84	88	88	84
LCS	89	93	86	88	90	83
MS	91	94	89	89	90	82
MSD	91	95	86	89	89	83

Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11291SLE026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6438618	108	92	89
6438619	104	90	88
6438620	101	87	86
6438621	97	83	82
6438622	105	90	96
6438623	105	88	96
6438624	103	90	95
6438625	111	94	97
6438626	114	87	86
Blank	103	89	91
LCS	107	92	84
MS	107	91	87
MSD	109	92	85

Limits:	40-130	45-130	45-135

Analysis Name: 21a NDMA by 1625C
Batch number: 11291SLG026

N-Nitrosodimethylamine-d6

6438626	86
6438629	87
Blank	124
LCS	120
MS	94
MSD	77

Limits: 50-150

Analysis Name: 15a Energetics by 8330A
Batch number: 112880015A

2-Nitro-m-xylene

6438626	131
Blank	125
LCS	114
LCSD	113
MS	108
MSD	113

Limits: 80-146

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

Surrogate Quality Control

Analysis Name: 20a Formaldehyde 8315A
Batch number: 112910003A
Butyraldehyde

6438626	81
Blank	87
LCS	86
MS	80
MSD	84

Limits: 64-126

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 112910025A
Tetrachloro-m-xylene Decachlorobiphenyl

6438618	79	93
6438619	63	77
6438621	52*	61
Blank	82	93
LCS	73	89
LCSD	76	99
MS	74	84
MSD	61	89

Limits: 53-139 45-120

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113010003A
Tetrachloro-m-xylene Decachlorobiphenyl

6438620	81	89
6438622	80	85
6438623	83	90
6438624	79	92
6438625	88	91
6438626	87	86
Blank	81	94
LCS	84	95
LCSD	90	96
MS	88	86
MSD	90	86

Limits: 53-139 45-120

Analysis Name: 18a Alcohols by 8015B
Batch number: 112900028A
Acetone

6438626	40*
Blank	83
LCS	82
MS	69
MSD	66

Limits: 42-138

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/09/11 at 11:09 AM

Group Number: 1271484

Surrogate Quality Control

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 112920027A

	Chlorobenzene	Orthoterphenyl
6438626	72	80
Blank	82	88
LCS	88	92
MS	77	86
MSD	80	90

Limits: 37-125 47-145

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112920028A
n-Triacontane-d62

6438626	198*
Blank	80
LCS	79
MS	79
MSD	79

Limits: 19-152

Analysis Name: 19a Glycols by 8015B
Batch number: 112980042A
Tetramethylene glycol

6438626	82
Blank	100
LCS	99
MS	88
MSD	87

Limits: 29-137

*- Outside of specification

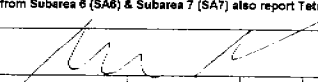
** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct #13013 Cp #1271484

sample # 6433618-29

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																											
Samplers Signatures: 																											
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8270B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8062	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1623C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downal EPA 8270		
SL-006-SA3-SB-4.0-5.0	10.13.11	1529	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													Sampled 10.13.11	
SL-006-SA3-SB-9.0-10.0	10.13.11	1447	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													Sampled 10.13.11	
SL-036-SA5DS-SB-4.0-5.0	10.14.11	1138	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-036-SA5DS-SB-9.0-10.0	10.14.11	1134	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-037-SA5DS-SB-4.0-5.0	10.14.11	0947	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-037-SA5DS-SB-9.0-10.0	10.14.11	0905	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-038-SA5DS-SB-4.0-5.0	10.14.11	1100	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-038-SA5DS-SB-9.0-10.0	10.14.11	1027	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-164-SA7-SB-0.5-1.5	10.14.11	1420	SOIL	NONE	1-SS Sleeve			X	X																		
SL-164-SA7-SB-0.5-1.5	10.14.11	1420	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X			
EB-SA3-SB-101411	10.14.11	1400	WATER	NONE	1-1 L Amber											X	X	X	X	X	X	X	X	X		HGL ASTM II WATER-HA crew	
TB-101411	10.14.11	0800	WATER	NONE	1-1 L Amber													X									
TB-101411	10.14.11	0800	SOIL	NONE	1-4 oz Jar													X									
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:	
		10/13/2011 / 1630																								Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No.(s)																							
		10-15-11 12:18		8767 9858 6806, 6817																							

Bevely

0945
JH 10/15/11
(3)

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 30, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/15/2011

Group Number: 1271486

SDG: DX149

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-006-SA3-SB-4.0-5.0 Soil
SL-006-SA3-SB-9.0-10.0 Soil
SL-036-SA5DS-SB-4.0-5.0 Soil
SL-036-SA5DS-SB-9.0-10.0 Soil
SL-037-SA5DS-SB-4.0-5.0 Soil
SL-037-SA5DS-SB-9.0-10.0 Soil
SL-038-SA5DS-SB-4.0-5.0 Soil
SL-038-SA5DS-SB-9.0-10.0 Soil
SL-164-SA7-SB-0.5-1.5 SoilLancaster Labs (LLI) #6438634
6438635
6438636
6438637
6438638
6438639
6438640
6438641
6438642

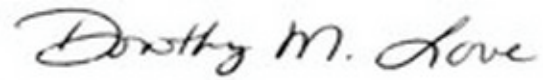
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Dorothy M. Love
Group Leader



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438634
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4906 SDG#: DX149-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	9.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438634
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4906 SDG#: DX149-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0466 U	0.0466	1.09	1
11031	12378-PeCDD	40321-76-4	0.0450 JBQ	0.0386	5.43	1
11031	123478-HxCDD	39227-28-6	0.0633 JBQ	0.0279	5.43	1
11031	123678-HxCDD	57653-85-7	0.0516 JQ	0.0289	5.43	1
11031	123789-HxCDD	19408-74-3	0.0621 JBQ	0.0298	5.43	1
11031	1234678-HpCDD	35822-46-9	0.276 JB	0.0305	5.43	1
11031	OCDD	3268-87-9	0.641 JBQ	0.0312	10.9	1
11031	2378-TCDF	51207-31-9	0.0372 JQ	0.0286	1.09	1
11031	12378-PeCDF	57117-41-6	0.0445 JBQ	0.0186	5.43	1
11031	23478-PeCDF	57117-31-4	0.0526 JB	0.0175	5.43	1
11031	123478-HxCDF	70648-26-9	0.0431 JBQ	0.0155	5.43	1
11031	123678-HxCDF	57117-44-9	0.0193 JBQ	0.0143	5.43	1
11031	123789-HxCDF	72918-21-9	0.0157 U	0.0157	5.43	1
11031	234678-HxCDF	60851-34-5	0.0589 JBQ	0.0136	5.43	1
11031	1234678-HpCDF	67562-39-4	0.176 JB	0.0142	5.43	1
11031	1234789-HpCDF	55673-89-7	0.0370 JBQ	0.0186	5.43	1
11031	OCDF	39001-02-0	0.158 JB	0.0408	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	103	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	86	26 - 138
13C12-OCDF	91	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438634
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4906 SDG#: DX149-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-006-SA3-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-4.0-5.0

LLI Sample # SW 6438634
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 15:29

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 10/30/2011 16:19

Chantilly VA 20151

X4906 SDG#: DX149-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/24/2011 22:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438635
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4907 SDG#: DX149-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	11.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438635
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4907 SDG#: DX149-07

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	0.115 JQ	0.0525	1.13	1
11031	12378-PeCDD	40321-76-4	0.0438 U	0.0438	5.64	1
11031	123478-HxCDD	39227-28-6	0.0297 U	0.0297	5.64	1
11031	123678-HxCDD	57653-85-7	0.0545 JQ	0.0307	5.64	1
11031	123789-HxCDD	19408-74-3	0.0856 JBQ	0.0291	5.64	1
11031	1234678-HpCDD	35822-46-9	0.342 JBQ	0.0307	5.64	1
11031	OCDD	3268-87-9	0.910 JB	0.0262	11.3	1
11031	2378-TCDF	51207-31-9	0.0364 U	0.0364	1.13	1
11031	12378-PeCDF	57117-41-6	0.123 JBQ	0.0223	5.64	1
11031	23478-PeCDF	57117-31-4	0.118 JBQ	0.0197	5.64	1
11031	123478-HxCDF	70648-26-9	0.126 JBQ	0.0225	5.64	1
11031	123678-HxCDF	57117-44-9	0.0975 JBQ	0.0211	5.64	1
11031	123789-HxCDF	72918-21-9	0.0731 JBQ	0.0224	5.64	1
11031	234678-HxCDF	60851-34-5	0.0980 JB	0.0193	5.64	1
11031	1234678-HpCDF	67562-39-4	0.234 JB	0.0160	5.64	1
11031	1234789-HpCDF	55673-89-7	0.0545 JB	0.0203	5.64	1
11031	OCDF	39001-02-0	0.145 JB	0.0370	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	86	25 - 164
13C12-12378-PeCDD	94	25 - 181
13C12-123478-HxCDD	98	32 - 141
13C12-123678-HxCDD	99	28 - 130
13C12-123789-HxCDD	99	28 - 130
13C12-1234678-HpCDD	109	23 - 140
13C12-OCDD	114	17 - 157
13C12-2378-TCDF	87	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	94	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	91	28 - 136
13C12-123789-HxCDF	98	29 - 147
13C12-1234678-HpCDF	103	28 - 143
13C12-1234789-HpCDF	96	26 - 138
13C12-OCDF	102	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
 SSFL Area IV Collocated Soil Sampling
 SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438635
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

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Reported: 10/30/2011 16:19

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X4907 SDG#: DX149-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-006-SA3-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA3-SB-9.0-10.0

LLI Sample # SW 6438635
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/13/2011 14:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

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Reported: 10/30/2011 16:19

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Chantilly VA 20151

X4907 SDG#: DX149-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 02:19	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438636
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4908 SDG#: DX149-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	12.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438636
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4908 SDG#: DX149-08

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	0.0632 JQ	0.0504	1.15	1
11031	12378-PeCDD	40321-76-4	0.391 JB	0.0450	5.73	1
11031	123478-HxCDD	39227-28-6	0.202 JBQ	0.0323	5.73	1
11031	123678-HxCDD	57653-85-7	0.197 JQ	0.0328	5.73	1
11031	123789-HxCDD	19408-74-3	0.158 JBQ	0.0322	5.73	1
11031	1234678-HpCDD	35822-46-9	0.366 JBQ	0.0346	5.73	1
11031	OCDD	3268-87-9	0.559 JBQ	0.0305	11.5	1
11031	2378-TCDF	51207-31-9	0.0811 J	0.0298	1.15	1
11031	12378-PeCDF	57117-41-6	0.479 JB	0.0230	5.73	1
11031	23478-PeCDF	57117-31-4	0.357 JB	0.0207	5.73	1
11031	123478-HxCDF	70648-26-9	0.241 JB	0.0243	5.73	1
11031	123678-HxCDF	57117-44-9	0.281 JBQ	0.0222	5.73	1
11031	123789-HxCDF	72918-21-9	0.184 JBQ	0.0235	5.73	1
11031	234678-HxCDF	60851-34-5	0.165 JBQ	0.0211	5.73	1
11031	1234678-HpCDF	67562-39-4	0.229 JBQ	0.0152	5.73	1
11031	1234789-HpCDF	55673-89-7	0.105 JBQ	0.0191	5.73	1
11031	OCDF	39001-02-0	0.200 JBQ	0.0389	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	94	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	84	26 - 138
13C12-OCDF	86	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Estimated Detection Limit and Minimum Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration
- F* Interference is present



Analysis Report

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Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438636
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4908 SDG#: DX149-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-036-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438636
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:38

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4908 SDG#: DX149-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 03:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438637
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4909 SDG#: DX149-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	13.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438637
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4909 SDG#: DX149-09

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	0.0518 U	0.0518	1.13	1
11031	12378-PeCDD	40321-76-4	0.182 JBQ	0.0440	5.64	1
11031	123478-HxCDD	39227-28-6	0.0897 JBQ	0.0364	5.64	1
11031	123678-HxCDD	57653-85-7	0.286 J	0.0369	5.64	1
11031	123789-HxCDD	19408-74-3	0.690 JBQ	0.0360	5.64	1
11031	1234678-HpCDD	35822-46-9	0.355 JBQ	0.0349	5.64	1
11031	OCDD	3268-87-9	0.628 JB	0.0335	11.3	1
11031	2378-TCDF	51207-31-9	0.0589 JQ	0.0349	1.13	1
11031	12378-PeCDF	57117-41-6	0.267 JB	0.0217	5.64	1
11031	23478-PeCDF	57117-31-4	0.168 JBQ	0.0209	5.64	1
11031	123478-HxCDF	70648-26-9	0.137 JBQ	0.0243	5.64	1
11031	123678-HxCDF	57117-44-9	0.166 JBQ	0.0217	5.64	1
11031	123789-HxCDF	72918-21-9	0.725 JBQ	0.0245	5.64	1
11031	234678-HxCDF	60851-34-5	0.114 JB	0.0204	5.64	1
11031	1234678-HpCDF	67562-39-4	0.165 JBQ	0.0167	5.64	1
11031	1234789-HpCDF	55673-89-7	0.0242 JBQ	0.0227	5.64	1
11031	OCDF	39001-02-0	0.112 JBQ	0.0453	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	81	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438637
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4909 SDG#: DX149-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-036-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-036-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438637
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:34

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4909 SDG#: DX149-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 04:12	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438638
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/15/2011 09:45

Reported: 10/30/2011 16:19

X4910 SDG#: DX149-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438638
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4910 SDG#: DX149-10

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	0.114 JQ	0.0563	1.15	1
11031	12378-PeCDD	40321-76-4	0.172 JBQ	0.0442	5.75	1
11031	123478-HxCDD	39227-28-6	0.0654 JBQ	0.0311	5.75	1
11031	123678-HxCDD	57653-85-7	0.239 J	0.0320	5.75	1
11031	123789-HxCDD	19408-74-3	0.488 JB	0.0343	5.75	1
11031	1234678-HpCDD	35822-46-9	0.294 JBQ	0.0338	5.75	1
11031	OCDD	3268-87-9	0.670 JB	0.0350	11.5	1
11031	2378-TCDF	51207-31-9	0.0416 J	0.0344	1.15	1
11031	12378-PeCDF	57117-41-6	0.301 JB	0.0224	5.75	1
11031	23478-PeCDF	57117-31-4	0.285 JBQ	0.0201	5.75	1
11031	123478-HxCDF	70648-26-9	0.136 JBQ	0.0264	5.75	1
11031	123678-HxCDF	57117-44-9	0.0902 JBQ	0.0235	5.75	1
11031	123789-HxCDF	72918-21-9	0.657 JB	0.0258	5.75	1
11031	234678-HxCDF	60851-34-5	0.0677 JBQ	0.0213	5.75	1
11031	1234678-HpCDF	67562-39-4	0.138 JBQ	0.0171	5.75	1
11031	1234789-HpCDF	55673-89-7	0.0546 JBQ	0.0234	5.75	1
11031	OCDF	39001-02-0	0.0767 JB	0.0428	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
 SSFL Area IV Collocated Soil Sampling
 SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438638
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4910 SDG#: DX149-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-037-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438638
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:47

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4910 SDG#: DX149-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 05:09	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438639
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4911 SDG#: DX149-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	15.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438639
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4911 SDG#: DX149-11

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	0.0526 U	0.0526	1.17	1
11031	12378-PeCDD	40321-76-4	0.0430 U	0.0430	5.83	1
11031	123478-HxCDD	39227-28-6	0.0314 JBQ	0.0287	5.83	1
11031	123678-HxCDD	57653-85-7	0.0299 U	0.0299	5.83	1
11031	123789-HxCDD	19408-74-3	0.0452 JBQ	0.0291	5.83	1
11031	1234678-HpCDD	35822-46-9	0.298 JB	0.0337	5.83	1
11031	OCDD	3268-87-9	0.585 JB	0.0303	11.7	1
11031	2378-TCDF	51207-31-9	0.0316 U	0.0316	1.17	1
11031	12378-PeCDF	57117-41-6	0.0215 JBQ	0.0202	5.83	1
11031	23478-PeCDF	57117-31-4	0.0579 JBQ	0.0196	5.83	1
11031	123478-HxCDF	70648-26-9	0.0300 JBQ	0.0187	5.83	1
11031	123678-HxCDF	57117-44-9	0.0294 JBQ	0.0165	5.83	1
11031	123789-HxCDF	72918-21-9	0.0584 JBQ	0.0184	5.83	1
11031	234678-HxCDF	60851-34-5	0.0283 JBQ	0.0150	5.83	1
11031	1234678-HpCDF	67562-39-4	0.0771 JB	0.0142	5.83	1
11031	1234789-HpCDF	55673-89-7	0.0336 JBQ	0.0215	5.83	1
11031	OCDF	39001-02-0	0.194 JB	0.0405	11.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438639
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4911 SDG#: DX149-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-037-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-037-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438639
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 09:05

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4911 SDG#: DX149-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 06:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438640
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4912 SDG#: DX149-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	8.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438640
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4912 SDG#: DX149-12

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	0.0444 U	0.0444	1.08	1
11031	12378-PeCDD	40321-76-4	0.0398 U	0.0398	5.38	1
11031	123478-HxCDD	39227-28-6	0.0436 JBQ	0.0246	5.38	1
11031	123678-HxCDD	57653-85-7	0.0241 U	0.0241	5.38	1
11031	123789-HxCDD	19408-74-3	0.101 JBQ	0.0236	5.38	1
11031	1234678-HpCDD	35822-46-9	0.268 JBQ	0.0314	5.38	1
11031	OCDD	3268-87-9	0.914 JB	0.0271	10.8	1
11031	2378-TCDF	51207-31-9	0.0293 U	0.0293	1.08	1
11031	12378-PeCDF	57117-41-6	0.0523 JBQ	0.0175	5.38	1
11031	23478-PeCDF	57117-31-4	0.0392 JBQ	0.0174	5.38	1
11031	123478-HxCDF	70648-26-9	0.0182 U	0.0182	5.38	1
11031	123678-HxCDF	57117-44-9	0.0179 JBQ	0.0169	5.38	1
11031	123789-HxCDF	72918-21-9	0.120 JBQ	0.0167	5.38	1
11031	234678-HxCDF	60851-34-5	0.0146 U	0.0146	5.38	1
11031	1234678-HpCDF	67562-39-4	0.0996 JBQ	0.0140	5.38	1
11031	1234789-HpCDF	55673-89-7	0.0575 JBQ	0.0205	5.38	1
11031	OCDF	39001-02-0	0.217 JBQ	0.0406	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	99	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	85	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438640
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4912 SDG#: DX149-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-038-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-4.0-5.0

LLI Sample # SW 6438640
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 11:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/15/2011 09:45

Suite 210

Reported: 10/30/2011 16:19

Chantilly VA 20151

X4912 SDG#: DX149-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 07:02	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438641
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4913 SDG#: DX149-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	7.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438641
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4913 SDG#: DX149-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0447 U	0.0447	1.04	1
11031	12378-PeCDD	40321-76-4	0.0544 JBQ	0.0352	5.22	1
11031	123478-HxCDD	39227-28-6	0.0276 U	0.0276	5.22	1
11031	123678-HxCDD	57653-85-7	0.0290 U	0.0290	5.22	1
11031	123789-HxCDD	19408-74-3	0.0735 JBQ	0.0288	5.22	1
11031	1234678-HpCDD	35822-46-9	0.332 JBQ	0.0263	5.22	1
11031	OCDD	3268-87-9	0.580 JB	0.0296	10.4	1
11031	2378-TCDF	51207-31-9	0.0289 U	0.0289	1.04	1
11031	12378-PeCDF	57117-41-6	0.0315 JBQ	0.0188	5.22	1
11031	23478-PeCDF	57117-31-4	0.0419 JBQ	0.0172	5.22	1
11031	123478-HxCDF	70648-26-9	0.0292 JB	0.0187	5.22	1
11031	123678-HxCDF	57117-44-9	0.0232 JBQ	0.0166	5.22	1
11031	123789-HxCDF	72918-21-9	0.147 JBQ	0.0201	5.22	1
11031	234678-HxCDF	60851-34-5	0.0281 JBQ	0.0161	5.22	1
11031	1234678-HpCDF	67562-39-4	0.0871 JBQ	0.0145	5.22	1
11031	1234789-HpCDF	55673-89-7	0.0399 JBQ	0.0198	5.22	1
11031	OCDF	39001-02-0	0.146 JBQ	0.0351	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	104	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	90	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438641
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4913 SDG#: DX149-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-038-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-038-SA5DS-SB-9.0-10.0

LLI Sample # SW 6438641
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 10:27

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4913 SDG#: DX149-13

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 07:59	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438642
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

CDM Federal Programs Corp.

Submitted: 10/15/2011 09:45

14420 Albemarle Point Place

Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4914 SDG#: DX149-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	2.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438642
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Reported: 10/30/2011 16:19

Suite 210

Chantilly VA 20151

X4914 SDG#: DX149-14

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	0.0430 U	0.0430	0.999	1
11031	12378-PeCDD	40321-76-4	0.0477 JB	0.0339	5.00	1
11031	123478-HxCDD	39227-28-6	0.0311 JBQ	0.0289	5.00	1
11031	123678-HxCDD	57653-85-7	0.0296 U	0.0296	5.00	1
11031	123789-HxCDD	19408-74-3	0.0690 JB	0.0280	5.00	1
11031	1234678-HpCDD	35822-46-9	0.584 JB	0.0335	5.00	1
11031	OCDD	3268-87-9	4.56 JB	0.0246	9.99	1
11031	2378-TCDF	51207-31-9	0.0362 U	0.0362	0.999	1
11031	12378-PeCDF	57117-41-6	0.0354 JBQ	0.0222	5.00	1
11031	23478-PeCDF	57117-31-4	0.0601 JB	0.0210	5.00	1
11031	123478-HxCDF	70648-26-9	0.0717 JBQ	0.0219	5.00	1
11031	123678-HxCDF	57117-44-9	0.0286 JB	0.0195	5.00	1
11031	123789-HxCDF	72918-21-9	0.0294 JBQ	0.0211	5.00	1
11031	234678-HxCDF	60851-34-5	0.0622 JBQ	0.0177	5.00	1
11031	1234678-HpCDF	67562-39-4	0.195 JB	0.0150	5.00	1
11031	1234789-HpCDF	55673-89-7	0.0524 JBQ	0.0220	5.00	1
11031	OCDF	39001-02-0	0.392 JBQ	0.0368	9.99	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	96	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	83	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438642
LLI Group # 1271486
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/14/2011 14:20

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X4914 SDG#: DX149-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Page 4 of 4

Sample Description: SL-164-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-164-SA7-SB-0.5-1.5

LLI Sample # SW 6438642
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Account # 13013

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General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 08:55	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402A	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/30/11 at 04:19 PM

Group Number: 1271486

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11298162402A Moisture Content by 160.3	Sample number(s): 6438634-6438642				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11294002	Sample number(s): 6438634-6438642								
2378-TCDD	0.0609 U	0.0609	1.00	ng/kg	107		67-158		
12378-PeCDD	0.0460 J	0.0441	5.00	ng/kg	105		70-142		
123478-HxCDD	0.0460 J	0.0278	5.00	ng/kg	100		70-164		
123678-HxCDD	0.0276 U	0.0276	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0516 J	0.0279	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.267 J	0.0317	5.00	ng/kg	100		70-140		
OCDD	0.461 J	0.0245	10.0	ng/kg	95		78-144		
2378-TCDF	0.0429 U	0.0429	1.00	ng/kg	97		75-158		
12378-PeCDF	0.0382 J	0.0220	5.00	ng/kg	102		80-134		
23478-PeCDF	0.0374 J	0.0203	5.00	ng/kg	96		68-160		
123478-HxCDF	0.0843 J	0.0241	5.00	ng/kg	97		72-134		
123678-HxCDF	0.0224 J	0.0214	5.00	ng/kg	98		84-130		
123789-HxCDF	0.0575 J	0.0180	5.00	ng/kg	98		78-130		
234678-HxCDF	0.0541 J	0.0162	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.154 J	0.0152	5.00	ng/kg	92		82-122		
1234789-HpCDF	0.0824 J	0.0190	5.00	ng/kg	96		78-138		
OCDF	0.172 J	0.0394	10.0	ng/kg	97		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11298162402A Moisture Content by 160.3	Sample number(s): 6438634-6438642					BKG: P438623 15.4	15.6	1	20
Batch number: 11294002	Sample number(s): 6438634-6438642					UNSPK: P435711			
2378-TCDD	109	105	67-158	3	25				
12378-PeCDD	105	104	70-142	0	25				
123478-HxCDD	98	98	70-164	1	25				
123678-HxCDD	93	95	76-134	3	25				
123789-HxCDD	100	102	64-162	3	25				
1234678-HpCDD	98	99	70-140	3	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/30/11 at 04:19 PM

Group Number: 1271486

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
OCDD	96	95	78-144	1	25			
2378-TCDF	98	97	75-158	0	25			
12378-PeCDF	101	102	80-134	2	25			
23478-PeCDF	96	93	68-160	2	25			
123478-HxCDF	100	97	72-134	2	25			
123678-HxCDF	98	98	84-130	0	25			
123789-HxCDF	100	98	78-130	0	25			
234678-HxCDF	95	95	70-156	2	25			
1234678-HpCDF	90	90	82-122	1	25			
1234789-HpCDF	96	96	78-138	1	25			
OCDF	97	95	63-170	1	25			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11294002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6438634	76	78	73	78	87	86
6438635	86	94	78	87	91	98
6438636	72	76	70	77	83	86
6438637	69	70	70	76	78	77
6438638	67	71	64	71	80	77
6438639	70	72	65	73	80	77
6438640	74	75	69	76	81	83
6438641	74	75	71	78	84	79
6438642	71	72	66	74	79	77
Blank	86	88	61	70	88	96
MS	76	80	51	59	84	85
MSD	72	79	50	54	81	84
OPR	74	77	60	69	78	83
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6438634	92	86	91	77	88	92
6438635	103	96	102	94	98	99
6438636	88	84	86	75	87	87
6438637	88	76	81	71	83	85
6438638	85	74	79	70	83	88
6438639	87	75	78	75	86	85
6438640	93	79	85	77	87	89
6438641	93	80	90	76	88	88
6438642	89	77	83	73	86	86
Blank	92	93	100	92	92	97
MS	77	83	88	81	90	89

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/30/11 at 04:19 PM

Group Number: 1271486

Surrogate Quality Control

MSD	72	83	92	79	83	84
OPR	88	82	87	81	86	87
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6438634	88	93	103	78	79	
6438635	99	109	114	87	94	
6438636	86	89	94	75	77	
6438637	82	86	93	70	74	
6438638	82	84	91	68	73	
6438639	83	85	91	70	75	
6438640	86	91	99	73	79	
6438641	88	92	104	73	80	
6438642	83	87	96	72	75	
Blank	96	108	118	82	92	
MS	89	95	102	78	84	
MSD	85	92	103	72	79	
OPR	86	95	103	73	81	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1271486

sample# 6438634-42

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 150.3 will be performed on soil in 18 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 50106020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8650 (10%)	TPH-GRO EPA 8015B \$	*TPH-EFH EPA 8015B Mod	*Nitrate EPA 300.0	*Formaldehyde EPA 8315A	*m-NDMA EPA 1825C	*Energetics EPA 8330A	*Cyanide EPA 9012B	*Terphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B		*Downal EPA 8270
		SL-006-SA3-SB-4.0-5.0	10.13.11	1529	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													Sampled 10.13.11
		SL-006-SA3-SB-9.0-10.0	10.13.11	1447	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													Sampled 10.13.11
		SL-036-SA5DS-SB-4.0-5.0	10.14.11	1138	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-036-SA5DS-SB-9.0-10.0	10.14.11	1134	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-037-SA5DS-SB-4.0-5.0	10.14.11	0947	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-037-SA5DS-SB-9.0-10.0	10.14.11	0905	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-038-SA5DS-SB-4.0-5.0	10.14.11	1100	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-038-SA5DS-SB-9.0-10.0	10.14.11	1027	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-164-SA7-SB-0.5-1.5	10.14.11	1420	SOIL	NONE	1-SS Sleeve			X	X																	
		SL-164-SA7-SB-0.5-1.5	10.14.11	1420	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X		
		EB-SA3-SB-101411	10.14.11	1400	WATER	NONE	1-1 L Amber													X							HGL ASTM II WATER-HA crew	
		TB-101411	10.14.11	0800	WATER	NONE	1-1 L Amber													X								
		TB-101411	10.14.11	0800	SOIL	NONE	1-4 oz Jar													X								
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)												Laboratory:												
		10/13/2011 / 1630														Lancaster Laboratories, Inc.												
Received by: (Signature)		Date/Time		Airbill No.(s)																								
Bandy		10-15-11 10:18		8767 9858 6806, 6817																								

Bandy

0945
24 10/15/11

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 04, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/18/2011

Group Number: 1271741

SDG: DE270

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-139-SA7-SB-2.0-3.0 Soil	6439920
SL-033-SA5DS-SB-2.0-3.0 Soil	6439921
SL-034-SA5DS-SB-4.0-5.0 Soil	6439922
SL-034-SA5DS-SB-4.0-5.0MS Soil	6439923
SL-034-SA5DS-SB-4.0-5.0MSD Soil	6439924
SL-034-SA5DS-SB-4.0-5.0DUP Soil	6439925
SL-034-SA5DS-SB-4.0-5.0RL MS Soil	6439926
SL-034-SA5DS-SB-4.0-5.0RL LCS Soil	6439927
SL-034-SA5DS-SB-9.0-10.0 Soil	6439928
SL-039-SA5DS-SB-3.0-4.0 Soil	6439929
DUP03-SA5DS-QC-101711 Soil	6439930
EB-SA5DS-SB-101711 Water	6439931
TB-101711 Water	6439932
TB-101711 Sand	6439933
TB-101711 Water	6439934

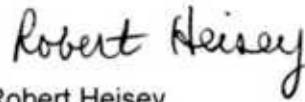
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 6

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439920
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 12:05

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL139 SDG#: DE270-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	25	J 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439920
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 12:05

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL139 SDG#: DE270-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.0	24.95
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439920
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 12:05

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL139 SDG#: DE270-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.64 J	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
GC Miscellaneous						
10501	Ethanol	64-17-5	110 U	110	530	1
10501	Isopropanol	67-63-0	110 U	110	530	1
10501	Methanol	67-56-1	110 U	110	530	1
GC Miscellaneous						
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11	1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11	1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11	1
GC Petroleum						
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7	1
GC Petroleum						
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	1.3	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.65 J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	5.5	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	9.8	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.44 J	0.42	1.3	1
Metals						
01643	Aluminum	7429-90-5	17,100	6.18	20.4	1
07914	Boron	7440-42-8	0.368 U	0.368	5.10	1
01650	Calcium	7440-70-2	2,770	2.55	20.4	1
01654	Iron	7439-89-6	21,300	2.66	20.4	1
01656	Lithium	7439-93-2	23.8	0.63	2.0	1
01657	Magnesium	7439-95-4	4,760	0.449	10.2	1
06958	Manganese	7439-96-5	259	0.0368	0.510	1
10145	Phosphorus	7723-14-0	251	0.357	10.2	1
01662	Potassium	7440-09-7	2,420	11.5	51.0	1
01667	Sodium	7440-23-5	93.2 J	6.07	102	1
07968	Strontium	7440-24-6	16.6	0.0255	0.510	1
06969	Tin	7440-31-5	2.66 J	0.327	10.2	1
06970	Titanium	7440-32-6	1,320	0.0739	1.04	1
10146	Zirconium	7440-67-7	1.47 J	0.470	5.10	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439920
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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14420 Albemarle Point Place

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Suite 210

Chantilly VA 20151

SL139 SDG#: DE270-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0755 U	0.0755	0.204	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.96	0.0817	0.408	2
06126	Barium	7440-39-3	82.2	0.108	0.408	2
06127	Beryllium	7440-41-7	0.547	0.0408	0.255	5
06128	Cadmium	7440-43-9	0.243	0.0449	0.102	2
06131	Chromium	7440-47-3	21.4	0.123	0.408	2
06132	Cobalt	7440-48-4	6.94	0.0204	0.102	2
06133	Copper	7440-50-8	7.37	0.0817	0.408	2
06135	Lead	7439-92-1	7.19	0.0104	0.204	2
06138	Molybdenum	7439-98-7	0.448	0.0510	0.102	2
06139	Nickel	7440-02-0	12.0	0.102	0.408	2
06141	Selenium	7782-49-2	0.143 J	0.0592	0.408	2
06142	Silver	7440-22-4	0.0442 J	0.0145	0.102	2
06145	Thallium	7440-28-0	0.221	0.0306	0.102	2
06148	Vanadium	7440-62-2	41.9	0.0225	0.102	2
06149	Zinc	7440-66-6	51.4	0.572	3.06	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0139 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.0	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.33 J	0.21	1.1	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.39	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439920
LLI Group # 1271741
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Project Name: SSFL Area IV Collocated Soil Sampling

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Suite 210

Chantilly VA 20151

SL139 SDG#: DE270-01

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-139-SA7-SB-2.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11291SLD026	10/21/2011 10:27	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 13:32	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11293A16A	10/21/2011 06:25	Laura M Krieger	24.95
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129125880	10/18/2011 19:21	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129125880	10/18/2011 19:22	Lois E Hiltz	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/22/2011 23:01	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112920034A	10/19/2011 20:17	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112930029A	10/20/2011 21:06	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112920028A	10/21/2011 18:18	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112920027A	10/21/2011 04:51	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112920027A	10/20/2011 12:00	Olivia I Santiago	1
10303	Terphenyls soil prep	SW-846 3550B	1	112920028A	10/20/2011 12:00	Olivia I Santiago	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112920034A	10/19/2011 18:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112930029A	10/20/2011 16:05	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 08:27	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:31	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 06:57	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 07:14	Choon Y Tian	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439920
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 12:05

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL139 SDG#: DE270-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 06:57	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 06:57	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 06:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 15:33	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621202A	10/21/2011 02:00	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201B	10/20/2011 19:24	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11293102201B	10/21/2011 08:17	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202A	10/20/2011 07:10	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11293102201B	10/20/2011 15:35	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1



Analysis Report

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Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439921
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL033 SDG#: DE270-02

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	570	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439921
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL033 SDG#: DE270-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	34,000	6.77	22.4	1
07914	Boron	7440-42-8	3.70 J	0.403	5.60	1
01650	Calcium	7440-70-2	19,600	2.80	22.4	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439921
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL033 SDG#: DE270-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	33,600	14.6	112	5
01656	Lithium	7439-93-2	35.0	0.69	2.2	1
01657	Magnesium	7439-95-4	8,290	0.492	11.2	1
06958	Manganese	7439-96-5	306	0.0403	0.560	1
10145	Phosphorus	7723-14-0	347	0.392	11.2	1
01662	Potassium	7440-09-7	3,630	12.6	56.0	1
01667	Sodium	7440-23-5	159	6.66	112	1
07968	Strontium	7440-24-6	58.5	0.0280	0.560	1
06969	Tin	7440-31-5	2.82 J	0.358	11.2	1
06970	Titanium	7440-32-6	1,740	0.0787	1.11	1
10146	Zirconium	7440-67-7	5.18 J	0.515	5.60	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.104 J	0.0828	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	5.25	0.0895	0.448	2
06126	Barium	7440-39-3	124	0.119	0.448	2
06127	Beryllium	7440-41-7	0.808	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.137	0.0492	0.112	2
06131	Chromium	7440-47-3	36.7	0.134	0.448	2
06132	Cobalt	7440-48-4	15.7	0.0224	0.112	2
06133	Copper	7440-50-8	17.2	0.0895	0.448	2
06135	Lead	7439-92-1	8.15	0.0114	0.224	2
06138	Molybdenum	7439-98-7	0.357	0.0560	0.112	2
06139	Nickel	7440-02-0	19.3	0.112	0.448	2
06141	Selenium	7782-49-2	0.257 J	0.0649	0.448	2
06142	Silver	7440-22-4	0.0183 J	0.0159	0.112	2
06145	Thallium	7440-28-0	0.302	0.0336	0.112	2
06148	Vanadium	7440-62-2	68.4	0.0246	0.112	2
06149	Zinc	7440-66-6	70.6	0.627	3.36	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0078 U	0.0078	0.111	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.5	0.93	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439921
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/18/2011 09:25

Suite 210

Reported: 11/04/2011 09:54

Chantilly VA 20151

SL033 SDG#: DE270-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.31	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11291SLD026	10/21/2011 10:52	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 14:06	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/22/2011 23:20	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112915708005	10/27/2011 17:02	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 08:39	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:43	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 07:00	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439921
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL033 SDG#: DE270-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 07:00	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 07:00	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 07:00	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:20	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 15:47	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202A	10/24/2011 13:45	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201B	10/20/2011 19:38	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202A	10/20/2011 07:10	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201A	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439922
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03BKG

CAT No.	Analysis Name	CAS Number	Dry 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	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439922
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	34,200	6.89	22.8	1
07914	Boron	7440-42-8	4.91 J	0.410	5.69	1
01650	Calcium	7440-70-2	9,770	2.85	22.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439922
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03BKG

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	36,000	14.9	114	5
01656	Lithium	7439-93-2	31.2	0.71	2.3	1
01657	Magnesium	7439-95-4	8,730	0.501	11.4	1
06958	Manganese	7439-96-5	367	0.0410	0.569	1
10145	Phosphorus	7723-14-0	258	0.399	11.4	1
01662	Potassium	7440-09-7	4,010	12.9	56.9	1
01667	Sodium	7440-23-5	132	6.78	114	1
07968	Strontium	7440-24-6	47.1	0.0285	0.569	1
06969	Tin	7440-31-5	2.76 J	0.364	11.4	1
06970	Titanium	7440-32-6	1,820	0.0809	1.14	1
10146	Zirconium	7440-67-7	5.12 J	0.524	5.69	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.126 J	0.0826	0.223	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.85	0.0893	0.447	2
06126	Barium	7440-39-3	162	0.118	0.447	2
06127	Beryllium	7440-41-7	0.879	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.162	0.0491	0.112	2
06131	Chromium	7440-47-3	48.2	0.134	0.447	2
06132	Cobalt	7440-48-4	15.5	0.0223	0.112	2
06133	Copper	7440-50-8	21.3	0.0893	0.447	2
06135	Lead	7439-92-1	11.0	0.0114	0.223	2
06138	Molybdenum	7439-98-7	0.326	0.0558	0.112	2
06139	Nickel	7440-02-0	26.2	0.112	0.447	2
06141	Selenium	7782-49-2	0.220 J	0.0648	0.447	2
06142	Silver	7440-22-4	0.0230 J	0.0159	0.112	2
06145	Thallium	7440-28-0	0.441	0.0335	0.112	2
06148	Vanadium	7440-62-2	99.3	0.0246	0.112	2
06149	Zinc	7440-66-6	91.9	0.625	3.35	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0078 U	0.0078	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.9	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.2	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439922
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 9045C modified Std. Units Std. Units Std. Units						
00394	17a pH by 9045C	n.a.	8.26	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified % % %						
11624	Moisture Content by 160.3	n.a.	12.2	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	11291SLD026	10/21/2011 05:25	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 11:53	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/22/2011 23:39	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112915708005	10/27/2011 16:39	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 08:01	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:07	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 06:27	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439922
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 06:27	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 06:27	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 06:27	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:21	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 14:33	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621202A	10/21/2011 00:51	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201B	10/20/2011 20:07	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202A	10/20/2011 07:10	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201B	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439923
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,800	19	190	1
04688	Acenaphthylene	208-96-8	1,900	19	190	1
04688	Aniline	62-53-3	1,300	190	560	1
04688	Anthracene	120-12-7	1,900	19	190	1
04688	Benizidine	92-87-5	4,300	1,300	3,700	1
04688	Benzo(a)anthracene	56-55-3	1,800	19	190	1
04688	Benzo(a)pyrene	50-32-8	1,800	19	190	1
04688	Benzo(b)fluoranthene	205-99-2	1,800	19	190	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	19	190	1
04688	Benzo(k)fluoranthene	207-08-9	1,800	19	190	1
04688	Benzoic acid	65-85-0	1,100	190	560	1
04688	Benzyl alcohol	100-51-6	1,800	190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	1,900	19	190	1
04688	Butylbenzylphthalate	85-68-7	1,900	19	190	1
04688	Di-n-butylphthalate	84-74-2	1,900	19	190	1
04688	Carbazole	86-74-8	1,800	19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	1,900	37	190	1
04688	4-Chloroaniline	106-47-8	1,100	75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,800	19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,700	19	190	1
04688	2-Chloronaphthalene	91-58-7	1,200	19	190	1
04688	2-Chlorophenol	95-57-8	1,800	19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	37	190	1
04688	Chrysene	218-01-9	1,700	19	190	1
04688	Dibenz(a,h)anthracene	53-70-3	1,800	19	190	1
04688	Dibenzofuran	132-64-9	1,800	19	190	1
04688	1,2-Dichlorobenzene	95-50-1	1,600	19	190	1
04688	1,3-Dichlorobenzene	541-73-1	1,700	19	190	1
04688	1,4-Dichlorobenzene	106-46-7	1,600	19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	890	110	370	1
04688	2,4-Dichlorophenol	120-83-2	1,900	19	190	1
04688	Diethylphthalate	84-66-2	1,800	19	190	1
04688	2,4-Dimethylphenol	105-67-9	1,900	37	190	1
04688	3,5-Dimethylphenol	108-68-9	2,100	37	190	1
04688	Dimethylphthalate	131-11-3	1,800	19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,200	190	560	1
04688	2,4-Dinitrophenol	51-28-5	1,200	370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,800	37	190	1
04688	2,6-Dinitrotoluene	606-20-2	1,900	19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	1,900	19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,800	19	370	1
04688	Fluoranthene	206-44-0	1,900	19	190	1
04688	Fluorene	86-73-7	1,900	19	190	1
04688	Hexachlorobenzene	118-74-1	1,800	19	190	1
04688	Hexachlorobutadiene	87-68-3	1,800	75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	3,000	190	560	1
04688	Hexachloroethane	67-72-1	1,600	19	190	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	19	190	1
04688	Isophorone	78-59-1	1,800	19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439923
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MS

CAT No.	Analysis Name	CAS Number	Dry 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	1,700	19	190	1
04688	2-Methylphenol	95-48-7	1,800	37	190	1
04688	4-Methylphenol	106-44-5	1,700	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	1,800	37	190	1
04688	4-Nitroaniline	100-01-6	1,400	75	190	1
04688	Nitrobenzene	98-95-3	1,800	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	2,000	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	1,800	19	190	1
04688	Pyrene	129-00-0	1,800	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	1,900	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	30	0.75	1.9	1
10138	Acenaphthylene	208-96-8	28	0.37	1.9	1
10138	Anthracene	120-12-7	31	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	33	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	30	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	33	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	32	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	32	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	33	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	33	6.7	20	1
10138	Chrysene	218-01-9	33	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	31	0.75	1.9	1
10138	Diethylphthalate	84-66-2	32	6.7	20	1
10138	Dimethylphthalate	131-11-3	32	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	39	6.7	20	1
10138	Fluoranthene	206-44-0	33	0.75	1.9	1
10138	Fluorene	86-73-7	27	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	32	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	28	0.75	1.9	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439923
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	28	0.75	1.9	1
10138	Naphthalene	91-20-3	29	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	32	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	31	6.7	20	1
10138	Phenanthrene	85-01-8	30	0.75	1.9	1
10138	Pyrene	129-00-0	32	0.75	1.9	1
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	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	14	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	16	0.44	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						
01643	Aluminum	7429-90-5	39,400	6.82	22.6	1
07914	Boron	7440-42-8	226	0.406	5.64	1
01650	Calcium	7440-70-2	13,300	2.82	22.6	1
01654	Iron	7439-89-6	36,200	14.7	113	5
01656	Lithium	7439-93-2	145	0.70	2.3	1
01657	Magnesium	7439-95-4	8,900	0.496	11.3	1
06958	Manganese	7439-96-5	400	0.0406	0.564	1
10145	Phosphorus	7723-14-0	388	0.395	11.3	1
01662	Potassium	7440-09-7	5,320	12.7	56.4	1
01667	Sodium	7440-23-5	1,210	6.71	113	1
07968	Strontium	7440-24-6	156	0.0282	0.564	1
06969	Tin	7440-31-5	391	0.361	11.3	1
06970	Titanium	7440-32-6	2,230	0.400	5.64	5
10146	Zirconium	7440-67-7	113	0.519	5.64	1
SW-846 6020						
06124	Antimony	7440-36-0	0.667	0.0843	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	8.32	0.0911	0.456	2
06126	Barium	7440-39-3	153	0.121	0.456	2
06127	Beryllium	7440-41-7	1.69	0.0182	0.114	2
06128	Cadmium	7440-43-9	1.35	0.0501	0.114	2
06131	Chromium	7440-47-3	53.6	0.137	0.456	2
06132	Cobalt	7440-48-4	70.7	0.0228	0.114	2
06133	Copper	7440-50-8	29.8	0.0911	0.456	2

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439923
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	
06135	Lead	7439-92-1	12.7	0.0116	0.228	2
06138	Molybdenum	7439-98-7	11.0	0.0569	0.114	2
06139	Nickel	7440-02-0	34.0	0.114	0.456	2
06141	Selenium	7782-49-2	2.34	0.0661	0.456	2
06142	Silver	7440-22-4	11.5	0.0162	0.114	2
06145	Thallium	7440-28-0	0.820	0.0342	0.114	2
06148	Vanadium	7440-62-2	97.8	0.0251	0.114	2
06149	Zinc	7440-66-6	86.6	0.638	3.42	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.189	0.0075	0.106	1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	11.9	0.90	1.1	1
		EPA 314.0	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	614	10.3	34.2	1
		SW-846 7199	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	38.7	1.1	5.6	5
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	12.2	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	11291SLD026	10/21/2011 05:50	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 12:26	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/22/2011 23:57	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439923
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01654	Iron	SW-846 6010B	1	112915708005	10/27/2011 16:50	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 09:41	Tara L Snyder	5
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:19	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 06:54	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 06:54	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 06:54	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 06:54	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:24	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 15:03	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621202A	10/21/2011 01:37	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11292243201B	10/20/2011 20:29	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202A	10/20/2011 07:10	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201B	10/19/2011 09:50	Michelle L Lalli	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 5

Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439924
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,800	19	190	1
04688	Acenaphthylene	208-96-8	1,900	19	190	1
04688	Aniline	62-53-3	1,300	190	570	1
04688	Anthracene	120-12-7	1,900	19	190	1
04688	Benzidine	92-87-5	4,300	1,300	3,800	1
04688	Benzo(a)anthracene	56-55-3	1,900	19	190	1
04688	Benzo(a)pyrene	50-32-8	1,900	19	190	1
04688	Benzo(b)fluoranthene	205-99-2	1,900	19	190	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	19	190	1
04688	Benzo(k)fluoranthene	207-08-9	1,900	19	190	1
04688	Benzoic acid	65-85-0	490	J 190	570	1
04688	Benzyl alcohol	100-51-6	1,800	190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	1,900	19	190	1
04688	Butylbenzylphthalate	85-68-7	1,900	19	190	1
04688	Di-n-butylphthalate	84-74-2	1,900	19	190	1
04688	Carbazole	86-74-8	1,800	19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	1,900	38	190	1
04688	4-Chloroaniline	106-47-8	1,200	76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,800	19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,700	19	190	1
04688	2-Chloronaphthalene	91-58-7	1,800	19	190	1
04688	2-Chlorophenol	95-57-8	1,900	19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,900	38	190	1
04688	Chrysene	218-01-9	1,800	19	190	1
04688	Dibenz(a,h)anthracene	53-70-3	1,900	19	190	1
04688	Dibenzofuran	132-64-9	1,800	19	190	1
04688	1,2-Dichlorobenzene	95-50-1	1,700	19	190	1
04688	1,3-Dichlorobenzene	541-73-1	1,700	19	190	1
04688	1,4-Dichlorobenzene	106-46-7	1,700	19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	990	110	380	1
04688	2,4-Dichlorophenol	120-83-2	1,900	19	190	1
04688	Diethylphthalate	84-66-2	1,800	19	190	1
04688	2,4-Dimethylphenol	105-67-9	1,900	38	190	1
04688	3,5-Dimethylphenol	108-68-9	2,200	38	190	1
04688	Dimethylphthalate	131-11-3	1,900	19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	330	J 190	570	1
04688	2,4-Dinitrophenol	51-28-5	450	J 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,900	38	190	1
04688	2,6-Dinitrotoluene	606-20-2	1,900	19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	1,900	19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,800	19	380	1
04688	Fluoranthene	206-44-0	1,900	19	190	1
04688	Fluorene	86-73-7	1,900	19	190	1
04688	Hexachlorobenzene	118-74-1	1,900	19	190	1
04688	Hexachlorobutadiene	87-68-3	1,800	76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	3,000	190	570	1
04688	Hexachloroethane	67-72-1	1,600	19	190	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,900	19	190	1
04688	Isophorone	78-59-1	1,800	19	190	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439924
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,700	19	190	1
04688	2-Methylnaphthalene	91-57-6	1,800	19	190	1
04688	2-Methylphenol	95-48-7	1,900	38	190	1
04688	4-Methylphenol	106-44-5	1,800	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	Naphthalene	91-20-3	1,800	19	190	1
04688	2-Nitroaniline	88-74-4	1,900	19	190	1
04688	3-Nitroaniline	99-09-2	1,800	38	190	1
04688	4-Nitroaniline	100-01-6	1,400	76	190	1
04688	Nitrobenzene	98-95-3	1,800	19	190	1
04688	2-Nitrophenol	88-75-5	1,800	19	190	1
04688	4-Nitrophenol	100-02-7	1,700	190	570	1
04688	N-Nitrosodimethylamine	62-75-9	1,600	38	190	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,700	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	2,000	19	190	1
04688	Pentachlorophenol	87-86-5	1,200	190	570	1
04688	Phenanthrene	85-01-8	1,800	19	190	1
04688	Phenol	108-95-2	1,900	19	190	1
04688	Pyrene	129-00-0	1,800	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,800	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	1,900	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	32	0.75	1.9	1
10138	Acenaphthylene	208-96-8	30	0.37	1.9	1
10138	Anthracene	120-12-7	32	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	33	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	30	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	33	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	33	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	33	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	34	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	33	6.7	20	1
10138	Chrysene	218-01-9	33	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	31	0.75	1.9	1
10138	Diethylphthalate	84-66-2	33	6.7	20	1
10138	Dimethylphthalate	131-11-3	34	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	38	6.7	20	1
10138	Fluoranthene	206-44-0	34	0.75	1.9	1
10138	Fluorene	86-73-7	33	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	32	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	30	0.75	1.9	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439924
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	29	0.75	1.9	1
10138	Naphthalene	91-20-3	30	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	34	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	31	6.7	20	1
10138	Phenanthrene	85-01-8	32	0.75	1.9	1
10138	Pyrene	129-00-0	32	0.75	1.9	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	12	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	14	0.44	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						
01643	Aluminum	7429-90-5	40,900	6.63	21.9	1
07914	Boron	7440-42-8	222	0.394	5.48	1
01650	Calcium	7440-70-2	9,350	2.74	21.9	1
01654	Iron	7439-89-6	36,300	14.3	110	5
01656	Lithium	7439-93-2	141	0.68	2.2	1
01657	Magnesium	7439-95-4	9,000	0.482	11.0	1
06958	Manganese	7439-96-5	391	0.0394	0.548	1
10145	Phosphorus	7723-14-0	430	0.383	11.0	1
01662	Potassium	7440-09-7	5,320	12.4	54.8	1
01667	Sodium	7440-23-5	1,170	6.52	110	1
07968	Strontium	7440-24-6	154	0.0274	0.548	1
06969	Tin	7440-31-5	376	0.350	11.0	1
06970	Titanium	7440-32-6	2,290	0.389	5.48	5
10146	Zirconium	7440-67-7	108	0.504	5.48	1
SW-846 6020						
06124	Antimony	7440-36-0	0.664	0.0810	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	8.58	0.0876	0.438	2
06126	Barium	7440-39-3	174	0.116	0.438	2
06127	Beryllium	7440-41-7	1.82	0.0175	0.110	2
06128	Cadmium	7440-43-9	1.37	0.0482	0.110	2
06131	Chromium	7440-47-3	59.9	0.131	0.438	2
06132	Cobalt	7440-48-4	77.1	0.0219	0.110	2
06133	Copper	7440-50-8	32.1	0.0876	0.438	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439924
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06135	Lead	7439-92-1	13.8	0.0112	0.219	2
06138	Molybdenum	7439-98-7	11.5	0.0548	0.110	2
06139	Nickel	7440-02-0	36.8	0.110	0.438	2
06141	Selenium	7782-49-2	2.68	0.0635	0.438	2
06142	Silver	7440-22-4	12.5	0.0156	0.110	2
06145	Thallium	7440-28-0	0.869	0.0329	0.110	2
06148	Vanadium	7440-62-2	108	0.0241	0.110	2
06149	Zinc	7440-66-6	95.5	0.613	3.29	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.198	0.0077	0.109	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	12.2	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	11291SLD026	10/21/2011 06:16	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 13:00	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 00:16	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112915708005	10/27/2011 16:54	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 09:45	Tara L Snyder	5

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439924
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:23	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 06:36	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 06:36	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 06:36	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 06:36	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:25	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0DUP

LLI Sample # SW 6439925
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03DUP

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	33,500	6.56	21.7	1
07914	Boron	7440-42-8	4.02 J	0.390	5.42	1
01650	Calcium	7440-70-2	11,300	2.71	21.7	1
01654	Iron	7439-89-6	35,500	14.2	108	5
01656	Lithium	7439-93-2	30.7	0.67	2.2	1
01657	Magnesium	7439-95-4	8,530	0.477	10.8	1
06958	Manganese	7439-96-5	389	0.0390	0.542	1
10145	Phosphorus	7723-14-0	290	0.380	10.8	1
01662	Potassium	7440-09-7	3,900	12.3	54.2	1
01667	Sodium	7440-23-5	129	6.45	108	1
07968	Strontium	7440-24-6	47.0	0.0271	0.542	1
06969	Tin	7440-31-5	2.60 J	0.347	10.8	1
06970	Titanium	7440-32-6	1,850	0.0785	1.11	1
10146	Zirconium	7440-67-7	5.41 J	0.499	5.42	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.103 J	0.0843	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	5.47	0.0911	0.456	2
06126	Barium	7440-39-3	137	0.121	0.456	2
06127	Beryllium	7440-41-7	0.862	0.0182	0.114	2
06128	Cadmium	7440-43-9	0.145	0.0501	0.114	2
06131	Chromium	7440-47-3	39.2	0.137	0.456	2
06132	Cobalt	7440-48-4	14.0	0.0228	0.114	2
06133	Copper	7440-50-8	17.4	0.0911	0.456	2
06135	Lead	7439-92-1	9.85	0.0116	0.228	2
06138	Molybdenum	7439-98-7	0.200	0.0569	0.114	2
06139	Nickel	7440-02-0	20.8	0.114	0.456	2
06141	Selenium	7782-49-2	0.144 J	0.0661	0.456	2
06142	Silver	7440-22-4	0.0167 J	0.0162	0.114	2
06145	Thallium	7440-28-0	0.356	0.0342	0.114	2
06148	Vanadium	7440-62-2	77.0	0.0251	0.114	2
06149	Zinc	7440-66-6	75.4	0.638	3.42	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.0	0.93	1.2	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.2	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0DUP

LLI Sample # SW 6439925
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.27	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	12.5	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	12.2	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112915708005	10/27/2011 16:47	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 08:09	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:15	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 06:51	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 06:51	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 06:51	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0DUP

LLI Sample # SW 6439925
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 06:51	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:23	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 14:48	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11293621202A	10/21/2011 01:14	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11292243201B	10/20/2011 21:12	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202A	10/20/2011 07:10	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201B	10/19/2011 09:50	Michelle L Lalli	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0RL MS

LLI Sample # SW 6439926
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03RLR

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	3.8	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	1.8 J	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	2.0	0.44	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
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	12.2	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 00:35	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 1

Sample Description: SL-034-SA5DS-SB-4.0-5.0RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0RL LCS

LLI Sample # SW 6439927
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL034 SDG#: DE270-03RLQ

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0	U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0	U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0	U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.5	J	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33	U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33	U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33	U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33	U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33	U	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.8		0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33	U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33	U	0.33	1.7	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 00:53	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439928
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

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SL349 SDG#: DE270-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	19	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	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-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439928
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

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Reported: 11/04/2011 09:54

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SL349 SDG#: DE270-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.9	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.9	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.9	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	28,300	6.66	22.0	1
07914	Boron	7440-42-8	3.84 J	0.396	5.50	1
01650	Calcium	7440-70-2	8,610	2.75	22.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439928
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL349 SDG#: DE270-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	37,800	14.4	110	5
01656	Lithium	7439-93-2	40.4	0.68	2.2	1
01657	Magnesium	7439-95-4	9,470	0.484	11.0	1
06958	Manganese	7439-96-5	304	0.0396	0.550	1
10145	Phosphorus	7723-14-0	646	0.385	11.0	1
01662	Potassium	7440-09-7	4,670	12.4	55.0	1
01667	Sodium	7440-23-5	238	6.55	110	1
07968	Strontium	7440-24-6	42.0	0.0275	0.550	1
06969	Tin	7440-31-5	2.59 J	0.352	11.0	1
06970	Titanium	7440-32-6	1,870	0.0789	1.11	1
10146	Zirconium	7440-67-7	4.89 J	0.506	5.50	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.204 U	0.204	0.550	5
	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. Reporting limits for ICPMS metals were raised due to interference from the sample matrix.					
06125	Arsenic	7440-38-2	7.79	0.220	1.10	5
06126	Barium	7440-39-3	104	0.292	1.10	5
06127	Beryllium	7440-41-7	0.870	0.0440	0.275	5
06128	Cadmium	7440-43-9	0.136 J	0.121	0.275	5
06131	Chromium	7440-47-3	43.2	0.330	1.10	5
06132	Cobalt	7440-48-4	25.6	0.0550	0.275	5
06133	Copper	7440-50-8	22.9	0.220	1.10	5
06135	Lead	7439-92-1	12.6	0.0281	0.550	5
06138	Molybdenum	7439-98-7	0.239 J	0.138	0.275	5
06139	Nickel	7440-02-0	25.5	0.275	1.10	5
06141	Selenium	7782-49-2	0.165 J	0.0638	0.440	2
06142	Silver	7440-22-4	0.0391 U	0.0391	0.275	5
06145	Thallium	7440-28-0	0.391	0.0826	0.275	5
06148	Vanadium	7440-62-2	87.2	0.0605	0.275	5
06149	Zinc	7440-66-6	91.1	1.54	8.26	5
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.9	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	34.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.25 J	0.23	1.2	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439928
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/18/2011 09:25

Suite 210

Reported: 11/04/2011 09:54

Chantilly VA 20151

SL349 SDG#: DE270-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.57	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.8	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	11291SLD026	10/21/2011 11:18	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 14:39	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 02:27	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112915708005	10/27/2011 17:06	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 08:43	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:48	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 07:17	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439928
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL349 SDG#: DE270-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 07:17	Choon Y Tian	5
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 07:03	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 07:17	Choon Y Tian	5
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:26	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 16:32	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202A	10/24/2011 14:08	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11292243201B	10/20/2011 21:27	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202A	10/20/2011 07:10	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201B	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1



Analysis Report

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Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439929
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL039 SDG#: DE270-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439929
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL039 SDG#: DE270-05

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	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5 U	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
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
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg		
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439929
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL039 SDG#: DE270-05

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	
01643	Aluminum	7429-90-5	28,100	6.36	21.0	1
07914	Boron	7440-42-8	4.03 J	0.379	5.26	1
01650	Calcium	7440-70-2	25,000	2.63	21.0	1
01654	Iron	7439-89-6	30,900	13.7	105	5
01656	Lithium	7439-93-2	38.6	0.65	2.1	1
01657	Magnesium	7439-95-4	8,820	0.463	10.5	1
06958	Manganese	7439-96-5	227	0.0379	0.526	1
10145	Phosphorus	7723-14-0	469	0.368	10.5	1
01662	Potassium	7440-09-7	4,320	11.9	52.6	1
01667	Sodium	7440-23-5	145	6.26	105	1
07968	Strontium	7440-24-6	91.0	0.0263	0.526	1
06969	Tin	7440-31-5	2.55 J	0.337	10.5	1
06970	Titanium	7440-32-6	1,480	0.0754	1.06	1
10146	Zirconium	7440-67-7	4.05 J	0.484	5.26	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.139 J	0.0771	0.208	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.97	0.0834	0.417	2
06126	Barium	7440-39-3	143	0.110	0.417	2
06127	Beryllium	7440-41-7	0.769	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.131	0.0458	0.104	2
06131	Chromium	7440-47-3	44.7	0.125	0.417	2
06132	Cobalt	7440-48-4	15.0	0.0208	0.104	2
06133	Copper	7440-50-8	19.2	0.0834	0.417	2
06135	Lead	7439-92-1	10.1	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.235	0.0521	0.104	2
06139	Nickel	7440-02-0	24.3	0.104	0.417	2
06141	Selenium	7782-49-2	0.294 J	0.0604	0.417	2
06142	Silver	7440-22-4	0.0229 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.391	0.0313	0.104	2
06148	Vanadium	7440-62-2	78.6	0.0229	0.104	2
06149	Zinc	7440-66-6	90.0	0.584	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.89	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	0.22 U	0.22	1.1	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439929
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/18/2011 09:25

Suite 210

Reported: 11/04/2011 09:54

Chantilly VA 20151

SL039 SDG#: DE270-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.59	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.6	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	11291SLD026	10/21/2011 11:43	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 15:12	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	112980018A	10/26/2011 18:54	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 02:46	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	112980018A	10/26/2011 09:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112915708005	10/27/2011 17:17	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 08:48	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:52	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439929
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

SL039 SDG#: DE270-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 07:06	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 07:06	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 07:06	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 07:06	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:27	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 16:46	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202A	10/24/2011 14:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201B	10/20/2011 21:34	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202A	10/20/2011 07:10	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201B	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

LLI Sample # SW 6439930
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:44

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

DUP03 SDG#: DE270-06FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

LLI Sample # SW 6439930
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:44

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

DUP03 SDG#: DE270-06FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	34,700	6.86	22.7	1
07914	Boron	7440-42-8	4.65 J	0.408	5.67	1
01650	Calcium	7440-70-2	14,900	2.84	22.7	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

LLI Sample # SW 6439930
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:44

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

DUP03 SDG#: DE270-06FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	36,000	14.8	113	5
01656	Lithium	7439-93-2	31.7	0.70	2.3	1
01657	Magnesium	7439-95-4	8,640	0.499	11.3	1
06958	Manganese	7439-96-5	327	0.0408	0.567	1
10145	Phosphorus	7723-14-0	295	0.397	11.3	1
01662	Potassium	7440-09-7	3,840	12.8	56.7	1
01667	Sodium	7440-23-5	135	6.75	113	1
07968	Strontium	7440-24-6	49.0	0.0284	0.567	1
06969	Tin	7440-31-5	2.70 J	0.363	11.3	1
06970	Titanium	7440-32-6	1,820	0.0782	1.10	1
10146	Zirconium	7440-67-7	4.85 J	0.522	5.67	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.208 U	0.208	0.562	5
	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. Reporting limits for ICPMS metals were raised due to interference from the sample matrix.					
06125	Arsenic	7440-38-2	6.43	0.225	1.12	5
06126	Barium	7440-39-3	133	0.298	1.12	5
06127	Beryllium	7440-41-7	0.852	0.0449	0.281	5
06128	Cadmium	7440-43-9	0.154 J	0.124	0.281	5
06131	Chromium	7440-47-3	40.0	0.337	1.12	5
06132	Cobalt	7440-48-4	12.7	0.0562	0.281	5
06133	Copper	7440-50-8	18.3	0.225	1.12	5
06135	Lead	7439-92-1	9.38	0.0286	0.562	5
06138	Molybdenum	7439-98-7	0.262 J	0.140	0.281	5
06139	Nickel	7440-02-0	21.8	0.281	1.12	5
06141	Selenium	7782-49-2	0.163 U	0.163	1.12	5
06142	Silver	7440-22-4	0.0399 U	0.0399	0.281	5
06145	Thallium	7440-28-0	0.290	0.0842	0.281	5
06148	Vanadium	7440-62-2	81.3	0.0618	0.281	5
06149	Zinc	7440-66-6	77.6	1.57	8.42	5
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0080 U	0.0080	0.113	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.4	0.92	1.2	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	0.22 U	0.22	1.1	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

LLI Sample # SW 6439930
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:44

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/18/2011 09:25

Suite 210

Reported: 11/04/2011 09:54

Chantilly VA 20151

DUP03 SDG#: DE270-06FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.50	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11291SLD026	10/21/2011 12:08	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 15:45	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11291SLD026	10/18/2011 21:35	Karen L Beyer	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 03:05	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112915708005	10/27/2011 17:21	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113005708002	10/31/2011 08:52	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112915708005	10/26/2011 07:56	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06125	Arsenic	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06126	Barium	SW-846 6020	1	112911026002D	10/20/2011 07:32	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06128	Cadmium	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5

*=This limit was used in the evaluation of the final result

Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

LLI Sample # SW 6439930
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:44

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

DUP03 SDG#: DE270-06FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06132	Cobalt	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06133	Copper	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06135	Lead	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06138	Molybdenum	SW-846 6020	1	112911026002C	10/20/2011 07:32	Choon Y Tian	5
06139	Nickel	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06141	Selenium	SW-846 6020	1	112911026002B	10/20/2011 07:32	Choon Y Tian	5
06142	Silver	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06145	Thallium	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06148	Vanadium	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
06149	Zinc	SW-846 6020	1	112911026002A	10/20/2011 07:32	Choon Y Tian	5
00159	Mercury	SW-846 7471A	1	112915711005	10/19/2011 18:31	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112915708005	10/19/2011 11:04	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	113005708002	10/30/2011 20:31	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112911026002	10/19/2011 11:39	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112915711005	10/19/2011 12:44	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11299621201B	10/27/2011 17:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202A	10/24/2011 14:54	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11292243201B	10/20/2011 21:48	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11299621201B	10/26/2011 06:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202A	10/20/2011 07:10	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11292243201B	10/19/2011 09:50	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1



Analysis Report

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Sample Description: EB-SA5DS-SB-101711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101711

LLI Sample # WW 6439931
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

EB117 SDG#: DE270-07EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C						
10962	N-Nitrosodimethylamine	62-75-9	3.54	0.530	1.06	1
N-Nitrosodimethylamine was detected in the method blank at a concentration of .718 ng/l. The blank value was not subtracted from the analytical result. Sufficient sample was unavailable to repeat the analysis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11292WAA026	11/01/2011 19:17	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11292WAA026	10/19/2011 15:00	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: TB-101711 Water
SSFL Area IV Collocated Soil Sampling
TB-101711

LLI Sample # WW 6439932
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 08:00

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

TB117 SDG#: DE270-08TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.489 U	0.489	0.978	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11292WAA026	11/01/2011 19:36	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11292WAA026	10/19/2011 15:00	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: TB-101711 Sand
SSFL Area IV Collocated Soil Sampling
TB-101711

LLI Sample # SW 6439933
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/18/2011 09:25

Suite 210

Reported: 11/04/2011 09:54

Chantilly VA 20151

TB17S SDG#: DE270-09TB

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	EPA 1625C		ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	105	16.6	33.2	1
Wet Chemistry	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11291SLG026	11/02/2011 02:14	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	1	11291SLG026	10/19/2011 06:50	Katheryne V Sponheimer	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 1

Sample Description: TB-101711 Water
SSFL Area IV Collocated Soil Sampling
TB-101711

LLI Sample # WW 6439934
LLI Group # 1271741
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 08:00

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 09:54

Suite 210

Chantilly VA 20151

TB17V SDG#: DE270-10TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11294B20A	10/24/2011 12:38	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11294B20A	10/24/2011 12:38	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11291SLD026	Sample number(s): 6439920-6439924, 6439928-6439930								
Acenaphthene	17	U	17.	170	ug/kg	95	76-111		
Acenaphthylene	17	U	17.	170	ug/kg	100	75-122		
Aniline	170		170.	500	ug/kg	68	20-115		
	U								
Anthracene	17	U	17.	170	ug/kg	100	76-112		
Benzidine	1,200		1,200.	3,300	ug/kg	57	15-121		
	U								
Benzo(a)anthracene	17	U	17.	170	ug/kg	98	73-112		
Benzo(a)pyrene	17	U	17.	170	ug/kg	98	65-124		
Benzo(b)fluoranthene	17	U	17.	170	ug/kg	95	61-127		
Benzo(g,h,i)perylene	17	U	17.	170	ug/kg	99	60-125		
Benzo(k)fluoranthene	17	U	17.	170	ug/kg	99	67-125		
Benzoic acid	170		170.	500	ug/kg	65	62-113		
	U								
Benzyl alcohol	170		170.	500	ug/kg	91	68-111		
	U								
4-Bromophenyl-phenylether	17	U	17.	170	ug/kg	101	73-114		
Butylbenzylphthalate	17	U	17.	170	ug/kg	101	75-115		
Di-n-butylphthalate	17	U	17.	170	ug/kg	103	79-112		
Carbazole	17	U	17.	170	ug/kg	99	77-113		
4-Chloro-3-methylphenol	33	U	33.	170	ug/kg	97	74-119		
4-Chloroaniline	67	U	67.	170	ug/kg	47	10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170	ug/kg	94	70-118		
bis(2-Chloroethyl)ether	17	U	17.	170	ug/kg	90	70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170	ug/kg	91	62-115		
2-Chloronaphthalene	17	U	17.	170	ug/kg	94	49-128		
2-Chlorophenol	17	U	17.	170	ug/kg	96	72-112		
4-Chlorophenyl-phenylether	33	U	33.	170	ug/kg	97	74-115		
Chrysene	17	U	17.	170	ug/kg	94	76-113		
Dibenz(a,h)anthracene	17	U	17.	170	ug/kg	96	61-126		
Dibenzofuran	17	U	17.	170	ug/kg	94	74-116		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	89	74-99		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	89	70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	89	74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	43	10-116		
	U								
2,4-Dichlorophenol	17	U	17.	170	ug/kg	99	75-111		
Diethylphthalate	17	U	17.	170	ug/kg	97	76-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	97	72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	119	83-120		
Dimethylphthalate	17	U	17.	170	ug/kg	96	77-109		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	47	46-120		
	U								
2,4-Dinitrophenol	330		330.	1,000	ug/kg	26	18-133		
	U								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

<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>
2,4-Dinitrotoluene	33	U	33.	170	ug/kg	96		73-115		
2,6-Dinitrotoluene	17	U	17.	170	ug/kg	101		79-115		
1,2-Diphenylhydrazine	17	U	17.	170	ug/kg	102		71-125		
bis(2-Ethylhexyl)phthalate	17	U	17.	330	ug/kg	97		75-117		
Fluoranthene	17	U	17.	170	ug/kg	101		78-116		
Fluorene	17	U	17.	170	ug/kg	100		75-116		
Hexachlorobenzene	17	U	17.	170	ug/kg	99		73-119		
Hexachlorobutadiene	67	U	67.	170	ug/kg	97		65-117		
Hexachlorocyclopentadiene	170		170.	500	ug/kg	86		46-115		
	U									
Hexachloroethane	17	U	17.	170	ug/kg	87		61-109		
Indeno(1,2,3-cd)pyrene	17	U	17.	170	ug/kg	100		64-119		
Isophorone	17	U	17.	170	ug/kg	94		69-110		
1-Methylnaphthalene	17	U	17.	170	ug/kg	90		74-105		
2-Methylnaphthalene	17	U	17.	170	ug/kg	92		69-109		
2-Methylphenol	33	U	33.	170	ug/kg	95		66-110		
4-Methylphenol	33	U	33.	170	ug/kg	90		66-117		
Naphthalene	17	U	17.	170	ug/kg	94		73-106		
2-Nitroaniline	17	U	17.	170	ug/kg	95		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	93		62-109		
4-Nitroaniline	67	U	67.	170	ug/kg	72		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	94		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	95		76-111		
4-Nitrophenol	170		170.	500	ug/kg	91		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	86		63-107		
N-Nitrosodimethylamine	33	U	33.	170	ug/kg	88		60-106		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	101		67-141		
Di-n-octylphthalate	17	U	17.	170	ug/kg	105		62-137		
Pentachlorophenol	170		170.	500	ug/kg	85		51-117		
	U									
Phenanthrene	17	U	17.	170	ug/kg	97		77-113		
Phenol	17	U	17.	170	ug/kg	95		58-112		
Pyrene	17	U	17.	170	ug/kg	95		75-115		
Tetralin	170		170.	170	ug/kg					
	U									
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	96		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	99		78-111		
Batch number: 11291SLG026	Sample number(s): 6439933									
N-Nitrosodimethylamine	16.7	U	16.7	33.3	ng/kg	105		70-130		
Batch number: 11292SLE026	Sample number(s): 6439920-6439924,6439928-6439930									
Acenaphthene	0.67	U	0.67	1.7	ug/kg	91		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	84		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	91		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	96		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	88		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	100		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	95		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	94		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	93		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	98		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	98		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	91		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	95		68-125		
Dimethylphthalate	6.0	U	6.0	18	ug/kg	95		79-121		

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

<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>
Bis (2-Ethylhexyl) phthalate	6.0 U	6.0	18	ug/kg	102		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	97		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	93		71-120		
Indeno (1,2,3-cd) pyrene	0.67 U	0.67	1.7	ug/kg	92		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	83		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	84		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	89		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	89		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	89		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	93		72-119		
Batch number: 11292WAA026	Sample number(s): 6439931-6439932								
N-Nitrosodimethylamine	0.718 U	0.500	1.00	ng/l	94	100	70-130	6	30
Batch number: 11293A16A	Sample number(s): 6439920								
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	76		67-119		
Batch number: 11294B20A	Sample number(s): 6439934								
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	109	109	75-135	0	30
Batch number: 112980018A	Sample number(s): 6439929								
6a Perchlorate EPA 6850	2.1 U	2.1	5.0	ug/kg	100		85-115		
Batch number: 112920031A	Sample number(s): 6439920-6439924, 6439926-6439930								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	66	67	36-106	0	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	88		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	96		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: 112920034A	Sample number(s): 6439920								
Ethanol	100 U	100.	500	ug/kg	85		71-129		
Isopropanol	100 U	100.	500	ug/kg	89		75-125		
Methanol	100 U	100.	500	ug/kg	76		68-129		
Batch number: 112930029A	Sample number(s): 6439920								
Diethylene glycol	5.0 U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	102		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	98		67-131		
Batch number: 112920027A	Sample number(s): 6439920								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	94		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	96		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	97		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	85		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	83		49-107		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

<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: 112920028A	Sample number(s): 6439920								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	100		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	105		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	98		69-109		
Batch number: 112911026002A	Sample number(s): 6439920-6439925, 6439928-6439930								
Antimony	0.0733 U	0.0733	0.198	mg/kg	80		40-227		
Arsenic	0.0792 U	0.0792	0.396	mg/kg	100		83-111		
Beryllium	0.0158 U	0.0158	0.0990	mg/kg	101		84-112		
Cadmium	0.0436 U	0.0436	0.0990	mg/kg	105		83-111		
Chromium	0.119 U	0.119	0.396	mg/kg	111		77-123		
Cobalt	0.0198 U	0.0198	0.0990	mg/kg	108		85-114		
Copper	0.0792 U	0.0792	0.396	mg/kg	105		81-110		
Lead	0.0154 J	0.0101	0.198	mg/kg	97		84-112		
Nickel	0.0990 U	0.0990	0.396	mg/kg	100		81-110		
Silver	0.0141 U	0.0141	0.0990	mg/kg	100		83-112		
Thallium	0.0297 U	0.0297	0.0990	mg/kg	99		82-112		
Vanadium	0.307	0.0218	0.0990	mg/kg	101		76-110		
Zinc	0.554 U	0.554	2.97	mg/kg	100		82-110		
Batch number: 112911026002B	Sample number(s): 6439920-6439925, 6439928-6439930								
Selenium	0.0574 U	0.0574	0.396	mg/kg	105		79-110		
Batch number: 112911026002C	Sample number(s): 6439920-6439925, 6439928-6439930								
Molybdenum	0.0495 U	0.0495	0.0990	mg/kg	100		80-110		
Batch number: 112911026002D	Sample number(s): 6439920-6439925, 6439928-6439930								
Barium	0.112 J	0.105	0.396	mg/kg	103		83-110		
Batch number: 112915708005	Sample number(s): 6439920-6439925, 6439928-6439930								
Aluminum	6.05 U	6.05	20.0	mg/kg	88		40-127		
Boron	0.360 U	0.360	5.00	mg/kg	100		83-110		
Calcium	8.59 J	2.50	20.0	mg/kg	105		81-110		
Iron	2.61 U	2.61	20.0	mg/kg	83		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	103		80-120		
Magnesium	0.440 U	0.440	10.0	mg/kg	91		63-116		
Manganese	0.0360 U	0.0360	0.500	mg/kg	99		85-116		
Phosphorus	1.21 J	0.350	10.0	mg/kg	105		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	103		71-110		
Sodium	5.95 U	5.95	100	mg/kg	101		76-110		
Strontium	0.0330 J	0.0250	0.500	mg/kg	100		84-110		
Tin	1.48 J	0.320	10.0	mg/kg	99		86-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	103		80-120		
Batch number: 112915711005	Sample number(s): 6439920-6439925, 6439928-6439930								
Mercury	0.0067 U	0.0067	0.0957	mg/kg	102		83-119		
Batch number: 113005708002	Sample number(s): 6439920-6439925, 6439928-6439930								
Titanium	0.0710 U	0.0710	1.00	mg/kg	119		80-120		
Batch number: 11292243201B	Sample number(s): 6439920-6439923, 6439925, 6439928-6439930								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	81		80-120		
Batch number: 11293102201B	Sample number(s): 6439920								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	85		80-120		
Batch number: 11293621202A	Sample number(s): 6439920-6439923, 6439925, 6439928-6439930								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	105		85-115		

*- 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: 11/04/11 at 09:54 AM

Group Number: 1271741

<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: 11299621201B 11a Anions by 300.0 - Fluoride	Sample number(s): 6439920-6439923, 6439925, 6439928-6439930 0.80 U 0.80 1.0 mg/kg				104		90-110		
Batch number: 11300039402A 17a pH by 9045C	Sample number(s): 6439920-6439922, 6439925, 6439928-6439930 100						95-105		
Batch number: 11298162402B 28a Moisture Content by 160.3 Moisture Content by 160.3 Moisture Content by 160.3	Sample number(s): 6439920-6439926, 6439928-6439930, 6439933 100 100 100						80-120 80-120 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: 11291SLD026	Sample number(s): 6439920-6439924, 6439928-6439930 UNSPK: 6439922								
Acenaphthene	96	97	75-115	2	30				
Acenaphthylene	103	102	81-110	1	30				
Aniline	71	71	18-116	0	30				
Anthracene	99	99	75-115	1	30				
Benidine	46	46	35-141	1	30				
Benzo(a)anthracene	97	99	65-122	3	30				
Benzo(a)pyrene	97	100	57-126	3	30				
Benzo(b)fluoranthene	98	101	59-125	3	30				
Benzo(g,h,i)perylene	95	97	59-127	3	30				
Benzo(k)fluoranthene	97	99	56-132	3	30				
Benzoic acid	58	26	10-173	75*	30				
Benzyl alcohol	94	96	67-115	3	30				
4-Bromophenyl-phenylether	100	100	67-129	1	30				
Butylbenzylphthalate	99	99	73-134	1	30				
Di-n-butylphthalate	101	101	67-123	1	30				
Carbazole	98	97	64-120	0	30				
4-Chloro-3-methylphenol	99	98	62-122	0	30				
4-Chloroaniline	57	64	13-107	13	30				
bis(2-Chloroethoxy)methane	95	96	75-104	2	30				
bis(2-Chloroethyl)ether	90	92	60-116	2	30				
bis(2-Chloroisopropyl)ether	91	91	55-142	1	30				
2-Chloronaphthalene	67	93	50-141	34*	30				
2-Chlorophenol	97	99	73-121	3	30				
4-Chlorophenyl-phenylether	99	99	80-109	1	30				
Chrysene	93	94	62-128	1	30				
Dibenz(a,h)anthracene	95	99	65-125	5	30				
Dibenzofuran	95	95	71-112	1	30				
1,2-Dichlorobenzene	88	88	66-108	1	30				
1,3-Dichlorobenzene	88	88	63-109	0	30				
1,4-Dichlorobenzene	88	88	58-108	1	30				
3,3'-Dichlorobenzidine	47	52	28-109	11	30				
2,4-Dichlorophenol	102	101	66-123	1	30				
Diethylphthalate	99	97	66-118	0	30				
2,4-Dimethylphenol	99	98	68-118	0	30				

*- 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: 11/04/11 at 09:54 AM

Group Number: 1271741

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
3,5-Dimethylphenol	111	118	71-127	8	30				
Dimethylphthalate	99	98	64-118	1	30				
4,6-Dinitro-2-methylphenol	63	18	11-126	112*	30				
2,4-Dinitrophenol	33	12*	20-143	93*	30				
2,4-Dinitrotoluene	98	98	56-129	1	30				
2,6-Dinitrotoluene	101	102	69-123	2	30				
1,2-Diphenylhydrazine	100	100	71-129	1	30				
bis(2-Ethylhexyl)phthalate	98	97	63-122	1	30				
Fluoranthene	101	100	73-112	0	30				
Fluorene	102	102	63-121	1	30				
Hexachlorobenzene	98	98	77-114	1	30				
Hexachlorobutadiene	95	96	62-120	2	30				
Hexachlorocyclopentadiene	80	80	10-153	2	30				
Hexachloroethane	87	85	57-109	1	30				
Indeno(1,2,3-cd)pyrene	96	98	61-126	3	30				
Isophorone	95	95	73-102	1	30				
1-Methylnaphthalene	92	91	64-122	0	30				
2-Methylnaphthalene	92	93	76-114	1	30				
2-Methylphenol	97	98	75-111	2	30				
4-Methylphenol	93	94	59-123	2	30				
Naphthalene	93	94	72-116	2	30				
2-Nitroaniline	99	100	67-125	2	30				
3-Nitroaniline	95	95	59-122	1	30				
4-Nitroaniline	76	75	41-109	0	30				
Nitrobenzene	94	95	57-125	2	30				
2-Nitrophenol	95	96	56-127	2	30				
4-Nitrophenol	93	89	37-129	3	30				
N-Nitroso-di-n-propylamine	87	88	60-116	2	30				
N-Nitrosodimethylamine	91	85	47-116	6	30				
N-Nitrosodiphenylamine	101	100	71-122	0	30				
Di-n-octylphthalate	105	106	56-126	2	30				
Pentachlorophenol	89	64	28-127	32*	30				
Phenanthrene	96	97	65-125	2	30				
Phenol	94	98	58-126	5	30				
Pyrene	95	95	74-126	1	30				
1,2,4-Trichlorobenzene	93	94	72-115	2	30				
2,4,5-Trichlorophenol	100	99	58-129	0	30				
2,4,6-Trichlorophenol	99	99	56-134	1	30				

Batch number: 11291SLG026 Sample number(s): 6439933 UNSPK: P437195
N-Nitrosodimethylamine 97 95 70-130 2 30

Batch number: 11292SLE026 Sample number(s): 6439920-6439924,6439928-6439930 UNSPK: 6439922

Acenaphthene	81	85	63-105	5	30
Acenaphthylene	76	80	67-114	6	30
Anthracene	84	86	73-115	3	30
Benzo(a)anthracene	89	88	59-128	1	30
Benzo(a)pyrene	81	81	58-142	0	30
Benzo(b)fluoranthene	87	88	54-163	1	30
Benzo(g,h,i)perylene	86	87	33-141	2	30
Benzo(k)fluoranthene	85	88	57-153	3	30
Butylbenzylphthalate	87	90	57-173	4	30
Di-n-butylphthalate	89	89	65-148	0	30

*- 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: 11/04/11 at 09:54 AM

Group Number: 1271741

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Chrysene	89	89	67-123	0	30				
Dibenz(a,h)anthracene	84	83	22-133	0	30				
Diethylphthalate	86	88	70-136	1	30				
Dimethylphthalate	87	90	74-118	4	30				
Bis(2-Ethylhexyl)phthalate	103	101	39-167	2	30				
Fluoranthene	88	90	51-149	2	30				
Fluorene	73	88	66-122	18	30				
Indeno(1,2,3-cd)pyrene	84	85	21-143	1	30				
1-Methylnaphthalene	75	80	72-123	6	30				
2-Methylnaphthalene	75	79	64-103	5	30				
Naphthalene	77	80	61-102	5	30				
N-Nitrosodimethylamine	85	90	48-113	6	30				
Di-n-octylphthalate	83	82	40-192	1	30				
Phenanthrene	81	85	62-122	5	30				
Pyrene	85	85	51-131	0	30				
Batch number: 11293A16A	Sample number(s): 6439920 UNSPK: P437195								
9a TPH by EPA 8015B Gas C5-C12	77	76	39-118	9	30				
Batch number: 112980018A	Sample number(s): 6439929 UNSPK: 6439929								
6a Perchlorate EPA 6850	100	104	80-120	4	20				
Batch number: 112920031A	Sample number(s): 6439920-6439924,6439926-6439930 UNSPK: 6439922								
PCB-1016	72	65	29-146	11	50				
PCB-1260	83	75	39-149	11	50				
Batch number: 112920034A	Sample number(s): 6439920 UNSPK: 6439920								
Ethanol	81	80	48-130	1	20				
Isopropanol	82	82	12-149	1	20				
Methanol	85	86	43-138	1	20				
Batch number: 112930029A	Sample number(s): 6439920 UNSPK: P435690								
Diethylene glycol	5*	8*	59-109	42*	20				
Ethylene glycol	47*	45*	63-107	6	20				
Propylene glycol	65	62*	63-107	5	20				
Batch number: 112920027A	Sample number(s): 6439920 UNSPK: P437195								
EFH (C12-C14)	82	89	49-123	8	20				
EFH (C15-C20)	81	98	49-123	13	20				
EFH (C21-C30)	102	117	49-123	7	20				
EFH (C30 - C40)	110	138*	49-123	8	20				
EFH (C8-C11)	0*	5*	49-123	10	20				
Batch number: 112920028A	Sample number(s): 6439920 UNSPK: P437195								
m-Terphenyl	97	98	75-125	2	20				
o-Terphenyl	102	103	75-125	1	20				
p-Terphenyl	95	97	75-125	2	20				
Batch number: 112911026002A	Sample number(s): 6439920-6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
Antimony	40*	41*	75-125	0	20	0.110 J	0.0903 J	20 (1)	20
Arsenic	64*	79	75-125	3	20	6.02	4.80	22*	20
Beryllium	89	108	75-125	8	20	0.772	0.757	2	20
Cadmium	104	110	75-125	1	20	0.142	0.127	11 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Chromium	48 (2)	108 (2)	75-125	11	20	42.3	34.4	20	20
Cobalt	97	113	75-125	9	20	13.6	12.3	10	20
Copper	75	99	75-125	7	20	18.7	15.3	20	20
Lead	48*	83	75-125	8	20	9.68	8.65	11	20
Nickel	69*	97	75-125	8	20	23.0	18.3	23*	20
Silver	101	114	75-125	9	20	0.0202 J	0.0147 J	32* (1)	20
Thallium	83	98	75-125	6	20	0.387	0.312	21* (1)	20
Vanadium	-13 (2)	77 (2)	75-125	10	20	87.2	67.6	25*	20
Zinc	-47 (2)	32 (2)	75-125	10	20	80.7	66.2	20	20
Batch number: 112911026002B	Sample number(s): 6439920-6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
Selenium	93	112	75-125	14	20	0.193 J	0.126 J	42* (1)	20
Batch number: 112911026002C	Sample number(s): 6439920-6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
Molybdenum	94	102	75-125	4	20	0.286	0.176	48* (1)	20
Batch number: 112911026002D	Sample number(s): 6439920-6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
Barium	-84 (2)	107 (2)	75-125	13	20	142	121	16	20
Batch number: 112915708005	Sample number(s): 6439920-6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
Aluminum	2292 (2)	3042 (2)	75-125	4	20	30,000	29,400	2	20
Boron	98	99	84-115	2	20	4.31 J	3.53 J	20 (1)	20
Calcium	792 (2)	-96 (2)	75-125	35*	20	8,580	9,930	15	20
Iron	181 (2)	299 (2)	75-125	0	20	31,600	31,100	1	20
Lithium	100	100	82-114	2	20	27.4	27.0	2	20
Magnesium	75 (2)	126 (2)	75-125	1	20	7,660	7,490	2	20
Manganese	59 (2)	43 (2)	75-125	2	20	322	341	6	20
Phosphorus	115	156*	75-125	10	20	227	255	12	20
Potassium	116	120	75-125	0	20	3,520	3,430	3	20
Sodium	96	95	75-125	3	20	116	113	2 (1)	20
Strontium	96	97	75-115	1	20	41.3	41.2	0	20
Tin	86	85	80-110	4	20	2.43 J	2.28 J	6 (1)	20
Zirconium	96	94	81-110	4	20	4.50 J	4.75 J	5 (1)	20
Batch number: 112915711005	Sample number(s): 6439920-6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
Mercury	107	109	65-135	4	20	0.0068 U	0.0067 U	0 (1)	20
Batch number: 113005708002	Sample number(s): 6439920-6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
Titanium	367 (2)	432 (2)	75-125	3	20	1,600	1,620	2	20
Batch number: 11292243201B	Sample number(s): 6439920-6439923,6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
3a Cr VI by EPA 7199	86		75-125			0.20 U	0.20 U	0 (1)	20
Batch number: 11293102201B	Sample number(s): 6439920 UNSPK: P437195 BKG: P437195								
16a Cyanide by 9012B	99		75-125			0.18 U	0.18 U	0 (1)	20
Batch number: 11293621202A	Sample number(s): 6439920-6439923,6439925,6439928-6439930 UNSPK: 6439922 BKG: 6439922								
7a Perchlorate EPA 314.0	108		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11299621201B	Sample number(s): 6439920-6439923,6439925,6439928-6439930 UNSPK: 6439922 BKG:								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

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
11a Anions by 300.0 - Fluoride	6439922 62*		80-120			4.3	4.4	1 (1)	20
Batch number: 11300039402A	Sample number(s): 6439920-6439922, 6439925, 6439928-6439930								
17a pH by 9045C						8.26	8.27	BKG: 6439922 0	3
Batch number: 11298162402B	Sample number(s): 6439920-6439926, 6439928-6439930, 6439933								
28a Moisture Content by 160.3						12.2	12.5	BKG: 6439922 2	20
Moisture Content by 160.3						12.2	12.5	2	20
Moisture Content by 160.3						12.2	12.5	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: 11291SLD026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6439920	92	95	86	92	90	86
6439921	84	88	74	82	80	83
6439922	86	90	81	86	85	81
6439923	91	94	89	89	90	82
6439924	91	95	86	89	89	83
6439928	89	93	76	86	89	85
6439929	86	91	74	86	85	84
6439930	91	94	79	89	88	87
Blank	88	93	84	88	88	84
LCS	89	93	86	88	90	83
MS	91	94	89	89	90	82
MSD	91	95	86	89	89	83
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 21a NDMA by 1625C

Batch number: 11291SLG026

N-Nitrosodimethylamine-
d6

6439933	114
Blank	124
LCS	120
MS	94
MSD	77
Limits:	50-150

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11292SLE026

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

Surrogate Quality Control

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6439920	100	84	89
6439921	96	80	91
6439922	90	75	85
6439923	101	77	84
6439924	97	81	82
6439928	93	78	86
6439929	96	79	91
6439930	97	80	89
Blank	94	83	90
LCS	101	84	88
MS	101	77	84
MSD	97	81	82
Limits:	40-130	45-130	45-135

Analysis Name: 21b. NDMA in Water
Batch number: 11292WAA026
N-Nitrosodimethylamine-
d6

6439931	144
6439932	107
Blank	117
LCS	120
LCSD	114
Limits:	50-150

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11293A16A
Trifluorotoluene-F

6439920	88
Blank	92
LCS	93
MS	90
MSD	76
Limits:	61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11294B20A
Trifluorotoluene-F

6439934	87
Blank	86
LCS	117
LCSD	113
Limits:	63-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 112920031A
Tetrachloro-m-xylene Decachlorobiphenyl

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

Surrogate Quality Control

6439920	91	98
6439921	84	97
6439922	78	88
6439923	90	97
6439924	86	91
6439926	88	95
6439927	93	102
6439928	87	96
6439929	88	93
6439930	91	102
Blank	86	94
LCS	94	102
LCSD	94	106
MS	90	97
MSD	86	91

Limits: 53-139 45-120

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 112920027A

Chlorobenzene Orthoterphenyl

6439920	80	87
Blank	82	88
LCS	88	92
MS	77	86
MSD	80	90

Limits: 37-125 47-145

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112920028A
n-Triacontane-d62

6439920	86
Blank	80
LCS	79
MS	79
MSD	79

Limits: 19-152

Analysis Name: 18a Alcohols by 8015B
Batch number: 112920034A
Acetone

6439920	81
Blank	86
LCS	89
MS	80
MSD	78

Limits: 42-138

Analysis Name: 19a Glycols by 8015B
Batch number: 112930029A
Tetramethylene glycol

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 09:54 AM

Group Number: 1271741

Surrogate Quality Control

6439920	88
Blank	98
LCS	98
MS	92
MSD	90

Limits: 29-137

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS				SECONDARY FOR ALL LOCATIONS																			
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels ‡ Mixture by EPA 8270.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected § For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						Other Instructions and Notes																							
Samplers Signatures:																													
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8200/8471/1A	**Nitrate EPA 300.0	**SVOCs EPA 8270C & PAHs 8270.3M	**PCB/PCTs EPA 8092	**Dioxin/Furan EPA 1631B	**Pesticides EPA 314.0	**Hex Chlorine EPA 7199	**pH EPA 9045C/9040B	**Pesticides Contaminant by EPA 8630 (11%)	**TPH-GRO EPA 8015B §	**TPH-EPI EPA 8015B Mod	**Tetralins EPA 300.0	**Cromaldehydes EPA 8315A	**NOMMA EPA 1625C	**Energies EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Cyanide EPA 8015B	**Alcohols EPA 8015B	**Dioxins EPA 8270				
SL-139-SA7-SB-2.5	10.17.11	1203	SOIL	NONE	2-Encores										X														
SL-139-SA7-SB-2.0-3.0	10.17.11	1205	SOIL	NONE	1-SS Sleeve			X	X																				
SL-139-SA7-SB-2.0-3.0	10.17.11	1223	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X					X	X	X	X					
SL-034-SA5DS-SB-2.0-3.0	10.17.11	1158	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																
SL-034-SA5DS-SB-4.0-5.0MS	10.17.11	1053	SOIL	NONE	6-16 oz Jars	X	X	X	X	X	X	X	X																
SL-034-SA5DS-SB-9.0-10.0	10.17.11	0958	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												MS/MSD				
SL-039-SA5DS-SB-3.0-4.0	10.17.11	1435	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X															
DUP03-SA5DS-QC-101711	10.17.11	1044	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X															
EB-SA5DS-SB-101711	10.17.11	1430	WATER	NONE	1-1 L Amber													X							HGL ASTM WATER-DP				
TB-101711	10.17.11	0800	WATER	NONE	1-1 L Amber													X											
TB-101711	10.17.11	0800	SOIL	NONE	1-4 oz Jar													X											
TB-101711	10.17.11	0800	WATER	NONE	2-40 mL Vials										X														
Relinquished by: (Signature)						Date/Time						Received for Laboratory by: (Signature)						Date/Time						Laboratory:					
						10/17/2011 / 1430												10/15/11 0925						Lancaster Laboratories, Inc.					
Received by: (Signature)						Date/Time						Alert No.(s)																	

Nicole Maljovec

From: Bloisa, Peggy [BloisaMJ@cdm.com]
Sent: Thursday, October 27, 2011 11:56 AM
To: Nicole Maljovec
Cc: Hartman, Pamela
Subject: Sample SL-139-SA7-SB-2.0-3.0

Attachments: COC_10_17_11 revised.xlsx

Hi Nicole – the above referenced sample collected on 10/17/11 had two different collection times for the sleeve and the jars. Please use the earlier time (1205) for both containers.

See attached revised COC.

Thanks, Peggy

Peggy Bloisa, P.G.

CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |

| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

10/27/2011

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																										
Samplers Signatures:																										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8208/8471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*OCBs/PCTs EPA 8082	*ThionylFuran EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 945C/9040B	*perchlorate Confirmation by EPA 6850 (10%)	*TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8016B Mod	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**m-NDMA EPA 1925C	**Enigaticas EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8016B	**Glycols EPA 8015B	**Alcohols EPA 8015H	**Downal EPA 8270	
SL-139-SA7-SB-2.5	10.17.11	1203	SOIL	NONE	2-Encores										X											
SL-139-SA7-SB-2.0-3.0	10.17.11	1205	SOIL	NONE	1-SS Sleeve			X	X																	
SL-139-SA7-SB-2.0-3.0	10.17.11	1205	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X				X	X	X	X			
SL-033-SA5DS-SB-2.0-3.0	10.17.11	1158	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
SL-034-SA5DS-SB-4.0-5.0MS	10.17.11	1053	SOIL	NONE	6-16 oz Jars	X	X	X	X	X	X	X	X												MS/MSD	
SL-034-SA5DS-SB-9.0-10.0	10.17.11	0958	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
SL-039-SA5DS-SB-3.0-4.0	10.17.11	1435	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X												
DUP03-SA5DS-QC-101711	10.17.11	1044	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
EB-SA5DS-SB-101711	10.17.11	1430	WATER	NONE	1-1 L Amber													X							HGL ASTM II WATER-DPT crew	
TB-101711	10.17.11	0800	WATER	NONE	1-1 L Amber													X								
TB-101711	10.17.11	0800	SOIL	NONE	1-4 oz Jar													X								
TB-101711	10.17.11	0800	WATER	NONE	2-40 mL Vials									X												
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:
		10/17/2011 / 1630																								Lancaster Laboratories, Inc.
Received by: (Signature)		Date/Time		Airbill No.(s)																						
				8767 9858 6828,6770																						

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 04, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/18/2011

Group Number: 1271745

SDG: DX151

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-139-SA7-SB-2.0-3.0 Soil
SL-033-SA5DS-SB-2.0-3.0 Soil
SL-034-SA5DS-SB-4.0-5.0 Soil
SL-034-SA5DS-SB-4.0-5.0MS Soil
SL-034-SA5DS-SB-4.0-5.0MSD Soil
SL-034-SA5DS-SB-9.0-10.0 Soil
SL-039-SA5DS-SB-3.0-4.0 Soil
DUP03-SA5DS-QC-101711 SoilLancaster Labs (LLI) #6439943
6439944
6439945
6439946
6439947
6439948
6439949
6439950

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439943
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 12:05

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD139 SDG#: DX151-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439943
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 12:05

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD139 SDG#: DX151-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0287 U	0.0287	1.04	1
11031	12378-PeCDD	40321-76-4	0.0962 JQ	0.0287	5.21	1
11031	123478-HxCDD	39227-28-6	0.0374 U	0.0374	5.21	1
11031	123678-HxCDD	57653-85-7	0.282 J	0.0364	5.21	1
11031	123789-HxCDD	19408-74-3	0.191 JBQ	0.0375	5.21	1
11031	1234678-HpCDD	35822-46-9	6.33 B	0.0508	5.21	1
11031	OCDD	3268-87-9	76.5 B	0.0371	10.4	1
11031	2378-TCDF	51207-31-9	0.0624 JQ	0.0368	1.04	1
11031	12378-PeCDF	57117-41-6	0.106 JB	0.0259	5.21	1
11031	23478-PeCDF	57117-31-4	0.177 JBQ	0.0254	5.21	1
11031	123478-HxCDF	70648-26-9	0.473 JB	0.0343	5.21	1
11031	123678-HxCDF	57117-44-9	0.0907 JBQ	0.0292	5.21	1
11031	123789-HxCDF	72918-21-9	0.0734 JBQ	0.0343	5.21	1
11031	234678-HxCDF	60851-34-5	0.116 JB	0.0319	5.21	1
11031	1234678-HpCDF	67562-39-4	1.10 JB	0.0158	5.21	1
11031	1234789-HpCDF	55673-89-7	0.126 JB	0.0250	5.21	1
11031	OCDF	39001-02-0	2.82 JB	0.0345	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439943
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 12:05

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD139 SDG#: DX151-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-139-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-139-SA7-SB-2.0-3.0

LLI Sample # SW 6439943
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 12:05

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD139 SDG#: DX151-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301001	10/30/2011 14:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301001	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439944
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD033 SDG#: DX151-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	12.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439944
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD033 SDG#: DX151-02

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	0.0307 U	0.0307	1.14	1
11031	12378-PeCDD	40321-76-4	0.0393 JQ	0.0274	5.70	1
11031	123478-HxCDD	39227-28-6	0.0241 JQ	0.0176	5.70	1
11031	123678-HxCDD	57653-85-7	0.0230 JQ	0.0171	5.70	1
11031	123789-HxCDD	19408-74-3	0.0598 JBQ	0.0174	5.70	1
11031	1234678-HpCDD	35822-46-9	0.233 JB	0.0241	5.70	1
11031	OCDD	3268-87-9	0.626 JB	0.0318	11.4	1
11031	2378-TCDF	51207-31-9	0.0244 U	0.0244	1.14	1
11031	12378-PeCDF	57117-41-6	0.0268 JBQ	0.0168	5.70	1
11031	23478-PeCDF	57117-31-4	0.0522 JB	0.0159	5.70	1
11031	123478-HxCDF	70648-26-9	0.0449 JBQ	0.0137	5.70	1
11031	123678-HxCDF	57117-44-9	0.0196 JB	0.0115	5.70	1
11031	123789-HxCDF	72918-21-9	0.0926 JB	0.0137	5.70	1
11031	234678-HxCDF	60851-34-5	0.0437 JB	0.0122	5.70	1
11031	1234678-HpCDF	67562-39-4	0.120 JB	0.0113	5.70	1
11031	1234789-HpCDF	55673-89-7	0.0505 JB	0.0171	5.70	1
11031	OCDF	39001-02-0	0.225 JBQ	0.0340	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

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Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439944
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD033 SDG#: DX151-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-033-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-033-SA5DS-SB-2.0-3.0

LLI Sample # SW 6439944
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 11:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD033 SDG#: DX151-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301001	10/30/2011 15:14	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301001	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439945
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD034 SDG#: DX151-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	12.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439945
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

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Reported: 11/04/2011 00:39

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Chantilly VA 20151

SD034 SDG#: DX151-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0349 U	0.0349	1.10	1
11031	12378-PeCDD	40321-76-4	0.0273 U	0.0273	5.49	1
11031	123478-HxCDD	39227-28-6	0.0183 U	0.0183	5.49	1
11031	123678-HxCDD	57653-85-7	0.0442 JQ	0.0191	5.49	1
11031	123789-HxCDD	19408-74-3	0.0445 JBQ	0.0172	5.49	1
11031	1234678-HpCDD	35822-46-9	0.233 JBQ	0.0260	5.49	1
11031	OCDD	3268-87-9	0.630 JBQ	0.0353	11.0	1
11031	2378-TCDF	51207-31-9	0.0289 U	0.0289	1.10	1
11031	12378-PeCDF	57117-41-6	0.0286 JBQ	0.0161	5.49	1
11031	23478-PeCDF	57117-31-4	0.0434 JBQ	0.0158	5.49	1
11031	123478-HxCDF	70648-26-9	0.0416 JBQ	0.0187	5.49	1
11031	123678-HxCDF	57117-44-9	0.0281 JB	0.0148	5.49	1
11031	123789-HxCDF	72918-21-9	0.107 JBQ	0.0161	5.49	1
11031	234678-HxCDF	60851-34-5	0.0515 JBQ	0.0139	5.49	1
11031	1234678-HpCDF	67562-39-4	0.142 JB	0.0108	5.49	1
11031	1234789-HpCDF	55673-89-7	0.0155 U	0.0155	5.49	1
11031	OCDF	39001-02-0	0.174 JBQ	0.0374	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439945
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD034 SDG#: DX151-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0

LLI Sample # SW 6439945
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD034 SDG#: DX151-03BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301001	10/30/2011 16:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301001	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439946
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

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SD034 SDG#: DX151-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439946
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD034 SDG#: DX151-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	23.0	0.0691	1.14	1
11031	12378-PeCDD	40321-76-4	109	0.0555	5.69	1
11031	123478-HxCDD	39227-28-6	101	0.0562	5.69	1
11031	123678-HxCDD	57653-85-7	105	0.0603	5.69	1
11031	123789-HxCDD	19408-74-3	114	0.0558	5.69	1
11031	1234678-HpCDD	35822-46-9	111	0.0688	5.69	1
11031	OCDD	3268-87-9	220	0.0566	11.4	1
11031	2378-TCDF	51207-31-9	21.8	0.0858	1.14	1
11031	12378-PeCDF	57117-41-6	108	0.0532	5.69	1
11031	23478-PeCDF	57117-31-4	105	0.0576	5.69	1
11031	123478-HxCDF	70648-26-9	111	0.0936	5.69	1
11031	123678-HxCDF	57117-44-9	107	0.0780	5.69	1
11031	123789-HxCDF	72918-21-9	116	0.0917	5.69	1
11031	234678-HxCDF	60851-34-5	111	0.0794	5.69	1
11031	1234678-HpCDF	67562-39-4	99.5	0.0434	5.69	1
11031	1234789-HpCDF	55673-89-7	109	0.0680	5.69	1
11031	OCDF	39001-02-0	217	0.0691	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	64	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	62	24 - 185
13C12-23478-PeCDF	56	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	59	26 - 123
13C12-234678-HxCDF	56	28 - 136
13C12-123789-HxCDF	55	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439946
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD034 SDG#: DX151-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-034-SA5DS-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MS

LLI Sample # SW 6439946
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD034 SDG#: DX151-03MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301001	10/30/2011 17:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301001	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439947
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD034 SDG#: DX151-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439947
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

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SD034 SDG#: DX151-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.7	0.0399	1.14	1
11031	12378-PeCDD	40321-76-4	115	0.0402	5.69	1
11031	123478-HxCDD	39227-28-6	114	0.0395	5.69	1
11031	123678-HxCDD	57653-85-7	106	0.0383	5.69	1
11031	123789-HxCDD	19408-74-3	116	0.0372	5.69	1
11031	1234678-HpCDD	35822-46-9	114	0.0540	5.69	1
11031	OCDD	3268-87-9	224	0.0424	11.4	1
11031	2378-TCDF	51207-31-9	22.6	0.0469	1.14	1
11031	12378-PeCDF	57117-41-6	111	0.0331	5.69	1
11031	23478-PeCDF	57117-31-4	105	0.0314	5.69	1
11031	123478-HxCDF	70648-26-9	113	0.0565	5.69	1
11031	123678-HxCDF	57117-44-9	113	0.0503	5.69	1
11031	123789-HxCDF	72918-21-9	113	0.0527	5.69	1
11031	234678-HxCDF	60851-34-5	116	0.0528	5.69	1
11031	1234678-HpCDF	67562-39-4	105	0.0399	5.69	1
11031	1234789-HpCDF	55673-89-7	112	0.0550	5.69	1
11031	OCDF	39001-02-0	231	0.0465	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	61	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439947
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

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Reported: 11/04/2011 00:39

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SD034 SDG#: DX151-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-034-SA5DS-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-4.0-5.0MSD

LLI Sample # SW 6439947
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:53

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

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Reported: 11/04/2011 00:39

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Chantilly VA 20151

SD034 SDG#: DX151-03MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301001	10/30/2011 18:04	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301001	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



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Sample Description: SL-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439948
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

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Reported: 11/04/2011 00:39

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SD349 SDG#: DX151-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	11.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439948
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

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SD349 SDG#: DX151-04

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	0.0249 U	0.0249	1.11	1
11031	12378-PeCDD	40321-76-4	0.0265 JQ	0.0232	5.55	1
11031	123478-HxCDD	39227-28-6	0.0187 U	0.0187	5.55	1
11031	123678-HxCDD	57653-85-7	0.0328 JQ	0.0190	5.55	1
11031	123789-HxCDD	19408-74-3	0.0563 JB	0.0175	5.55	1
11031	1234678-HpCDD	35822-46-9	0.249 JBQ	0.0249	5.55	1
11031	OCDD	3268-87-9	0.511 JB	0.0311	11.1	1
11031	2378-TCDF	51207-31-9	0.0235 U	0.0235	1.11	1
11031	12378-PeCDF	57117-41-6	0.0323 JB	0.0141	5.55	1
11031	23478-PeCDF	57117-31-4	0.0446 JBQ	0.0149	5.55	1
11031	123478-HxCDF	70648-26-9	0.0514 JBQ	0.0162	5.55	1
11031	123678-HxCDF	57117-44-9	0.0409 JBQ	0.0136	5.55	1
11031	123789-HxCDF	72918-21-9	0.0594 JB	0.0144	5.55	1
11031	234678-HxCDF	60851-34-5	0.0419 JBQ	0.0126	5.55	1
11031	1234678-HpCDF	67562-39-4	0.106 JB	0.0107	5.55	1
11031	1234789-HpCDF	55673-89-7	0.0526 JB	0.0155	5.55	1
11031	OCDF	39001-02-0	0.174 JBQ	0.0323	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

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Sample Description: SL-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439948
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD349 SDG#: DX151-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-034-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-034-SA5DS-SB-9.0-10.0

LLI Sample # SW 6439948
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 09:58

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

SD349 SDG#: DX151-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301001	10/30/2011 19:01	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301001	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439949
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

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Chantilly VA 20151

SD039 SDG#: DX151-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	8.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439949
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

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SD039 SDG#: DX151-05

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	0.0260 U	0.0260	1.08	1
11031	12378-PeCDD	40321-76-4	0.0475 JQ	0.0257	5.42	1
11031	123478-HxCDD	39227-28-6	0.0298 J	0.0181	5.42	1
11031	123678-HxCDD	57653-85-7	0.0385 JQ	0.0199	5.42	1
11031	123789-HxCDD	19408-74-3	0.0325 JB	0.0178	5.42	1
11031	1234678-HpCDD	35822-46-9	0.247 JBQ	0.0257	5.42	1
11031	OCDD	3268-87-9	0.558 JB	0.0309	10.8	1
11031	2378-TCDF	51207-31-9	0.0208 U	0.0208	1.08	1
11031	12378-PeCDF	57117-41-6	0.0388 JBQ	0.0151	5.42	1
11031	23478-PeCDF	57117-31-4	0.0741 JB	0.0142	5.42	1
11031	123478-HxCDF	70648-26-9	0.0451 JBQ	0.0146	5.42	1
11031	123678-HxCDF	57117-44-9	0.0565 JB	0.0125	5.42	1
11031	123789-HxCDF	72918-21-9	0.0455 JBQ	0.0120	5.42	1
11031	234678-HxCDF	60851-34-5	0.0576 JBQ	0.0114	5.42	1
11031	1234678-HpCDF	67562-39-4	0.155 JBQ	0.0111	5.42	1
11031	1234789-HpCDF	55673-89-7	0.0511 JBQ	0.0149	5.42	1
11031	OCDF	39001-02-0	0.165 JB	0.0242	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



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Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439949
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

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Chantilly VA 20151

SD039 SDG#: DX151-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-039-SA5DS-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-039-SA5DS-SB-3.0-4.0

LLI Sample # SW 6439949
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 14:35

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

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Reported: 11/04/2011 00:39

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Chantilly VA 20151

SD039 SDG#: DX151-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301001	10/30/2011 19:57	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301001	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

LLI Sample # SW 6439950
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:44

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

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DDP03 SDG#: DX151-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	12.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

LLI Sample # SW 6439950
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:44

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

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Reported: 11/04/2011 00:39

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DDP03 SDG#: DX151-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0345 JQ	0.0259	1.13	1
11031	12378-PeCDD	40321-76-4	0.128 JQ	0.0266	5.63	1
11031	123478-HxCDD	39227-28-6	0.0475 JQ	0.0196	5.63	1
11031	123678-HxCDD	57653-85-7	0.0734 JQ	0.0196	5.63	1
11031	123789-HxCDD	19408-74-3	0.111 JBQ	0.0194	5.63	1
11031	1234678-HpCDD	35822-46-9	0.254 JBQ	0.0253	5.63	1
11031	OCDD	3268-87-9	0.413 JB	0.0313	11.3	1
11031	2378-TCDF	51207-31-9	0.0237 U	0.0237	1.13	1
11031	12378-PeCDF	57117-41-6	0.190 JB	0.0157	5.63	1
11031	23478-PeCDF	57117-31-4	0.174 JB	0.0166	5.63	1
11031	123478-HxCDF	70648-26-9	0.135 JBQ	0.0228	5.63	1
11031	123678-HxCDF	57117-44-9	0.108 JB	0.0170	5.63	1
11031	123789-HxCDF	72918-21-9	0.143 JBQ	0.0163	5.63	1
11031	234678-HxCDF	60851-34-5	0.0900 JBQ	0.0157	5.63	1
11031	1234678-HpCDF	67562-39-4	0.126 JB	0.0119	5.63	1
11031	1234789-HpCDF	55673-89-7	0.0575 JB	0.0151	5.63	1
11031	OCDF	39001-02-0	0.187 JBQ	0.0318	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	99	23 - 140
13C12-OCDD	99	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	77	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

LLI Sample # SW 6439950
LLI Group # 1271745
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/17/2011 10:44

CDM Federal Programs Corp.

Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

DDP03 SDG#: DX151-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: DUP03-SA5DS-QC-101711 Soil
SSFL Area IV Collocated Soil Sampling
DUP03-SA5DS-QC-101711

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Submitted: 10/18/2011 09:25

14420 Albemarle Point Place

Reported: 11/04/2011 00:39

Suite 210

Chantilly VA 20151

DDP03 SDG#: DX151-06FD*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301001	10/30/2011 20:54	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301001	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162402B	10/25/2011 18:30	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 12:39 AM

Group Number: 1271745

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11298162402B Moisture Content by 160.3	Sample number(s): 6439943-6439950				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11301001	Sample number(s): 6439943-6439950								
2378-TCDD	0.0315 U	0.0315	1.00	ng/kg	96		67-158		
12378-PeCDD	0.0271 U	0.0271	5.00	ng/kg	96		70-142		
123478-HxCDD	0.0160 U	0.0160	5.00	ng/kg	91		70-164		
123678-HxCDD	0.0156 U	0.0156	5.00	ng/kg	88		76-134		
123789-HxCDD	0.0409 J	0.0163	5.00	ng/kg	95		64-162		
1234678-HpCDD	0.224 J	0.0203	5.00	ng/kg	97		70-140		
OCDD	0.412 J	0.0275	10.0	ng/kg	95		78-144		
2378-TCDF	0.0293 U	0.0293	1.00	ng/kg	93		75-158		
12378-PeCDF	0.0229 J	0.0162	5.00	ng/kg	94		80-134		
23478-PeCDF	0.0728 J	0.0166	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0465 J	0.0153	5.00	ng/kg	98		72-134		
123678-HxCDF	0.0250 J	0.0127	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0278 J	0.0136	5.00	ng/kg	98		78-130		
234678-HxCDF	0.0347 J	0.0128	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.159 J	0.0111	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0467 J	0.0180	5.00	ng/kg	92		78-138		
OCDF	0.202 J	0.0313	10.0	ng/kg	96		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11298162402B Moisture Content by 160.3	Sample number(s): 6439943-6439950					BKG: P439922 12.2	12.5	2	20
Batch number: 11301001	Sample number(s): 6439943-6439950					UNSPK: 6439945			
2378-TCDD	101	99	67-158	1	25				
12378-PeCDD	96	101	70-142	5	25				
123478-HxCDD	89	100	70-164	12	25				
123678-HxCDD	92	93	76-134	1	25				
123789-HxCDD	100	101	64-162	2	25				
1234678-HpCDD	98	100	70-140	3	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 12:39 AM

Group Number: 1271745

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
OCDD	96	98	78-144	2	25			
2378-TCDF	96	99	75-158	4	25			
12378-PeCDF	95	98	80-134	3	25			
23478-PeCDF	92	92	68-160	1	25			
123478-HxCDF	97	99	72-134	2	25			
123678-HxCDF	94	99	84-130	5	25			
123789-HxCDF	102	99	78-130	3	25			
234678-HxCDF	97	102	70-156	4	25			
1234678-HpCDF	87	92	82-122	6	25			
1234789-HpCDF	96	99	78-138	3	25			
OCDF	95	101	63-170	6	25			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11301001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6439943	72	69	67	77	74	74
6439944	69	67	59	68	65	66
6439945	72	71	52	62	67	65
6439946	63	56	52	59	56	55
6439947	66	62	59	63	61	69
6439948	74	67	60	70	73	71
6439949	67	67	59	63	68	71
6439950	78	72	52	65	78	78
Blank	73	70	60	71	74	74
MS	63	56	52	59	56	55
MSD	66	62	59	63	61	69
OPR	70	67	63	71	72	78
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6439943	100	76	72	81	83	85
6439944	85	64	58	78	73	75
6439945	83	66	62	80	76	74
6439946	75	55	55	66	69	64
6439947	76	62	60	68	66	70
6439948	91	71	68	78	82	82
6439949	82	70	67	74	80	74
6439950	83	79	77	84	89	92
Blank	96	73	69	83	89	87
MS	75	55	55	66	69	64
MSD	76	62	60	68	66	70
OPR	92	77	72	77	81	80

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/04/11 at 12:39 AM

Group Number: 1271745

Surrogate Quality Control

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6439943	85	94	95	65	75	
6439944	75	84	80	59	71	
6439945	79	83	81	62	75	
6439946	68	71	71	56	62	
6439947	72	76	76	56	64	
6439948	85	88	88	64	74	
6439949	80	82	85	61	68	
6439950	92	99	99	70	79	
Blank	90	97	96	61	76	
MS	68	71	71	56	62	
MSD	72	76	76	56	64	
OPR	84	90	87	61	71	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

13013 1271745 62439943-50

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels ‡ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 5 (SA5) & Subarea 7 (SA7) also report Tetra in under EPA Method 8270C.							Water EPA 001602084741A	Fluoride EPA 300.0	SVOCL EPA 8270C & PAHs 8270 SIM	PCB/MPCs EPA 8082	DDT/Furan EPA 1613B	Perchlorate EPA 314.0	Mer Chrome EPA 7149	PH EPA 9045C/9040B	Ortho Phosphate Confirmation by EPA 9050 (10%)	TPH-GRO EPA 8015B ‡	TPH-LEH EPA 8015B Mod	Nitrate EPA 300.0	Formaldehyde EPA 815A	As-NOMA EPA 1625C	Emeraldine EPA 8300A	Cyanide EPA 8012B	Tetraphenyl EPA 8015B	Glycols EPA 8015B	Alcohols EPA 8015B	Donor EPA 8270	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-139-SA7-SB-2.5	10.17.11	1203	SOIL	NONE	2-Encores																						
SL-139-SA7-SB-2.0-3.0	10.17.11	1205	SOIL	NONE	1-SS Sleeve																						
SL-139-SA7-SB-2.0-3.0	10.17.11	1223	SOIL	NONE	2-16 oz Jars	X	X																				
SL-033-SA5DS-SB-2.0-3.0	10.17.11	1158	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X															
SL-034-SA5DS-SB-4.0-5.0MS	10.17.11	1053	SOIL	NONE	6-16 oz Jars	X	X	X	X	X	X	X										MS/MSD					
SL-034-SA5DS-SB-9.0-10.0	10.17.11	0958	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X															
SL-039-SA5DS-SB-3.0-4.0	10.17.11	1435	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
DUP03-SA5DS-QC-101711	10.17.11	1044	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X															
EB-SA5DS-SB-101711	10.17.11	1430	WATER	NONE	1-1 L Amber											X						HGL/ASTM II WATER-OPT crew					
TB-101711	10.17.11	0800	WATER	NONE	1-1 L Amber											X											
TB-101711	10.17.11	0800	SOIL	NONE	1-4 oz Jar											X											
TB-101711	10.17.11	0800	WATER	NONE	2-40 mL Vials								X														
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																							
		10/17/2011 / 1430																									
Received by: (Signature)		Date/Time		Alibi No.(s)																							

 Laboratory:
 Lancaster Laboratories, Inc.

Nicole Maljovec

From: Bloisa, Peggy [BloisaMJ@cdm.com]
Sent: Thursday, October 27, 2011 11:56 AM
To: Nicole Maljovec
Cc: Hartman, Pamela
Subject: Sample SL-139-SA7-SB-2.0-3.0
Attachments: COC_10_17_11 revised.xlsx

Hi Nicole – the above referenced sample collected on 10/17/11 had two different collection times for the sleeve and the jars. Please use the earlier time (1205) for both containers.

See attached revised COC.

Thanks, Peggy

Peggy Bloisa, P.G.

CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |

| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

10/27/2011

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes										
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																																					
Samplers Signatures:																																					
SAMPLE NUMBER		DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 60106/8208&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCIS LPA 8092	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod	**Nitrates EPA 300.0	**Formaldehyde EPA 8015A	**p-NDMA EPA 1625C	**1,4-naphthol EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downall EPA 8270											
SL-139-SA7-SB-2.5		10.17.11	1203	SOIL	NONE	2-Encores										X																					
SL-139-SA7-SB-2.0-3.0		10.17.11	1205	SOIL	NONE	1-SS Sleeve			X	X																											
SL-139-SA7-SB-2.0-3.0		10.17.11	1205	SOIL	NONE	2-16 oz Jars	X	X								X					X	X	X	X													
SL-033-SA5DS-SB-2.0-3.0		10.17.11	1158	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																							
SL-034-SA5DS-SB-4.0-5.0MS		10.17.11	1053	SOIL	NONE	6-16 oz Jars	X	X	X	X	X	X	X	X												MS/MSD											
SL-034-SA5DS-SB-9.0-10.0		10.17.11	0958	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																							
SL-039-SA5DS-SB-3.0-4.0		10.17.11	1435	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																							
DUP03-SA5DS-QC-101711		10.17.11	1044	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																							
EB-SA5DS-SB-101711		10.17.11	1430	WATER	NONE	1-1 L Amber												X							HGL ASTM II WATER-DPT crew												
TB-101711		10.17.11	0800	WATER	NONE	1-1 L Amber												X																			
TB-101711		10.17.11	0800	SOIL	NONE	1-4 oz Jar												X																			
TB-101711		10.17.11	0800	WATER	NONE	2-40 mL Vials									X																						
Relinquished by: (Signature)		Date/Time 10/17/2011 / 1630		Received for Laboratory by: (Signature)																					Laboratory: Lancaster Laboratories, Inc.												
Received by: (Signature)		Date/Time		Airbill No.(s) 8767 9858 6828,6770																																	

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 18, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/19/2011

Group Number: 1271993

SDG: DE271

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-013-SA5DS-SB-4.0-5.0 Soil
SL-015-SA5DS-SB-3.5-4.5 Soil
SL-020-SA7-SB-4.0-5.0 Soil
SL-020-SA7-SB-9.0-10.0 Soil
SL-140-SA7-SB-3.0-4.0 Soil
EB-SA7-SB-101811 Water
TB-101811 Water
TB-101811 Sand
TB-101811 Water
EB-SA5DS-SB-101811 WaterLancaster Labs (LLI) #6441963
6441964
6441965
6441966
6441967
6441968
6441969
6441970
6441971
6441972

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

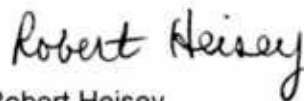
COPY TO

1 COPY TO Data Package Group

Attn: Todd Burgesser

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist



Analysis Report

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Page 1 of 5

Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441963
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL013 SDG#: DE271-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	1,200	190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 2 of 5

Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441963
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL013 SDG#: DE271-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.9		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.74	U 0.74	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20		1
10138	Chrysene	218-01-9	0.37	U 0.37	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.9		1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7	U 6.7	20		1
10138	Fluoranthene	206-44-0	0.74	U 0.74	1.9		1
10138	Fluorene	86-73-7	0.74	U 0.74	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.9		1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.7	U 6.7	20		1
10138	Phenanthrene	85-01-8	0.74	U 0.74	1.9		1
10138	Pyrene	129-00-0	0.74	U 0.74	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44	U 0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,300	6.53	21.6		1
07914	Boron	7440-42-8	0.388	U 0.388	5.39		1
01650	Calcium	7440-70-2	3,120	2.70	21.6		1

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Analysis Report

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Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441963
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL013 SDG#: DE271-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	25,000	2.82	21.6		1
01656	Lithium	7439-93-2	23.2	0.67	2.2		1
01657	Magnesium	7439-95-4	5,430	0.475	10.8		1
06958	Manganese	7439-96-5	281	0.0388	0.539		1
10145	Phosphorus	7723-14-0	491	0.378	10.8		1
01662	Potassium	7440-09-7	1,790	12.2	53.9		1
01667	Sodium	7440-23-5	102 J	6.42	108		1
07968	Strontium	7440-24-6	25.4	0.0270	0.539		1
06969	Tin	7440-31-5	2.67 J	0.345	10.8		1
06970	Titanium	7440-32-6	1,090	0.0766	1.08		1
10146	Zirconium	7440-67-7	7.64	0.496	5.39		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.128 J	0.0806	0.218		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	6.34	0.0871	0.436		2
06126	Barium	7440-39-3	92.1	0.115	0.436		2
06127	Beryllium	7440-41-7	0.896	0.0174	0.109		2
06128	Cadmium	7440-43-9	0.143	0.0479	0.109		2
06131	Chromium	7440-47-3	45.8	0.131	0.436		2
06132	Cobalt	7440-48-4	9.22	0.0218	0.109		2
06133	Copper	7440-50-8	8.96	0.0871	0.436		2
06135	Lead	7439-92-1	7.64	0.0111	0.218		2
06138	Molybdenum	7439-98-7	0.585	0.0544	0.109		2
06139	Nickel	7440-02-0	16.7	0.109	0.436		2
06141	Selenium	7782-49-2	0.304 J	0.0632	0.436		2
06142	Silver	7440-22-4	0.0267 J	0.0155	0.109		2
06145	Thallium	7440-28-0	0.272	0.0327	0.109		2
06148	Vanadium	7440-62-2	78.1	0.0240	0.109		2
06149	Zinc	7440-66-6	60.0	0.610	3.27		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0078 U	0.0078	0.111		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.2	0.92	1.2		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.0		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.52 J	0.23	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441963
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/19/2011 09:10

Suite 210

Reported: 11/18/2011 09:29

Chantilly VA 20151

SL013 SDG#: DE271-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.67	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	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	11293SLB026	10/23/2011 00:20	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 16:17	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11293SLB026	10/20/2011 16:45	JoElla L Rice	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 03:23	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	112935708007	10/28/2011 04:41	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112935708007	10/26/2011 20:38	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112931026004D	10/24/2011 14:28	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2

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Analysis Report

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Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441963
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL013 SDG#: DE271-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112931026004C	10/24/2011 14:28	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112931026004B	10/24/2011 14:28	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112931026004A	10/24/2011 14:28	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112935711007	10/24/2011 17:39	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112935708007	10/21/2011 09:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112931026004	10/21/2011 09:42	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112935711007	10/21/2011 11:37	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 09:37	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202B	10/24/2011 15:17	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 13:36	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202B	10/20/2011 07:10	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441964
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL015 SDG#: DE271-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	390	J 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	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

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 2 of 5

Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441964
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL015 SDG#: DE271-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	20		1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	20		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	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	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5	U 6.5	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.5	U 6.5	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.9		1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.9		1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,800	6.37	21.1		1
07914	Boron	7440-42-8	0.379	U 0.379	5.27		1
01650	Calcium	7440-70-2	3,190	2.63	21.1		1

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Analysis Report

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Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441964
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL015 SDG#: DE271-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,800	2.75	21.1		1
01656	Lithium	7439-93-2	20.4	0.65	2.1		1
01657	Magnesium	7439-95-4	5,530	0.464	10.5		1
06958	Manganese	7439-96-5	239	0.0379	0.527		1
10145	Phosphorus	7723-14-0	550	0.369	10.5		1
01662	Potassium	7440-09-7	2,080	11.9	52.7		1
01667	Sodium	7440-23-5	109	6.27	105		1
07968	Strontium	7440-24-6	25.6	0.0263	0.527		1
06969	Tin	7440-31-5	2.54 J	0.337	10.5		1
06970	Titanium	7440-32-6	1,040	0.0748	1.05		1
10146	Zirconium	7440-67-7	6.73	0.485	5.27		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.150 J	0.0803	0.217		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.91	0.0868	0.434		2
06126	Barium	7440-39-3	90.8	0.115	0.434		2
06127	Beryllium	7440-41-7	0.774	0.0174	0.108		2
06128	Cadmium	7440-43-9	0.151	0.0477	0.108		2
06131	Chromium	7440-47-3	41.8	0.130	0.434		2
06132	Cobalt	7440-48-4	9.72	0.0217	0.108		2
06133	Copper	7440-50-8	8.23	0.0868	0.434		2
06135	Lead	7439-92-1	7.22	0.0111	0.217		2
06138	Molybdenum	7439-98-7	0.498	0.0542	0.108		2
06139	Nickel	7440-02-0	14.6	0.108	0.434		2
06141	Selenium	7782-49-2	0.303 J	0.0629	0.434		2
06142	Silver	7440-22-4	0.0200 J	0.0154	0.108		2
06145	Thallium	7440-28-0	0.226	0.0325	0.108		2
06148	Vanadium	7440-62-2	72.2	0.0239	0.108		2
06149	Zinc	7440-66-6	60.2	0.607	3.25		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.107		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.89	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.2		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	2.1	0.22	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441964
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/19/2011 09:10

Suite 210

Reported: 11/18/2011 09:29

Chantilly VA 20151

SL015 SDG#: DE271-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.76	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	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	11293SLB026	10/23/2011 01:36	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 16:51	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11293SLB026	10/20/2011 16:45	JoElla L Rice	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 03:42	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	112935708007	10/28/2011 05:04	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112935708007	10/26/2011 21:02	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112931026004D	10/24/2011 14:31	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441964
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL015 SDG#: DE271-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112931026004C	10/24/2011 14:31	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112931026004B	10/24/2011 14:31	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112931026004A	10/24/2011 14:31	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112935711007	10/24/2011 17:40	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112935708007	10/21/2011 09:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112931026004	10/21/2011 09:42	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112935711007	10/21/2011 11:37	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 10:21	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202B	10/24/2011 16:49	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 14:43	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202B	10/20/2011 07:10	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441965
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL204 SDG#: DE271-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	J 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1

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Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441965
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL204 SDG#: DE271-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.8		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.71	U 0.71	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.71	U 0.71	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.71	U 0.71	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.71	U 0.71	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.74	J 0.71	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.4	U 6.4	19		1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19		1
10138	Chrysene	218-01-9	0.39	J 0.35	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.71	U 0.71	1.8		1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19		1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.9	J 6.4	19		1
10138	Fluoranthene	206-44-0	0.71	U 0.71	1.8		1
10138	Fluorene	86-73-7	0.71	U 0.71	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71	U 0.71	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.71	U 0.71	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.71	U 0.71	1.8		1
10138	Naphthalene	91-20-3	0.71	U 0.71	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.71	U 0.71	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19		1
10138	Phenanthrene	85-01-8	0.71	U 0.71	1.8		1
10138	Pyrene	129-00-0	0.71	U 0.71	1.8		1
GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
	mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.0		24.27
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.8		1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.8		1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.8		1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.8		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.8		1

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Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441965
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL204 SDG#: DE271-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8		1
10225	PCB-1260	11096-82-5	1.6 J	0.42	1.8		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	540		1
10501	Isopropanol	67-63-0	110 U	110	540		1
10501	Methanol	67-56-1	110 U	110	540		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4 U	5.4	11		1
08283	Ethylene glycol	107-21-1	5.4 U	5.4	11		1
08283	Propylene glycol	57-55-6	5.4 U	5.4	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.8		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.43 U	0.43	1.3		1
10199	EFH (C15-C20)	n.a.	0.43 U	0.43	1.3		1
10199	EFH (C21-C30)	n.a.	4.4	0.43	1.3		1
10199	EFH (C30 - C40)	n.a.	8.1	0.43	1.3		1
10199	EFH (C8-C11)	n.a.	0.43 U	0.43	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,900	6.39	21.1		1
07914	Boron	7440-42-8	0.380 U	0.380	5.28		1
01650	Calcium	7440-70-2	2,540	2.64	21.1		1
01654	Iron	7439-89-6	20,300	2.76	21.1		1
01656	Lithium	7439-93-2	23.1	0.66	2.1		1
01657	Magnesium	7439-95-4	4,560	0.465	10.6		1
06958	Manganese	7439-96-5	204	0.0380	0.528		1
10145	Phosphorus	7723-14-0	221	0.370	10.6		1
01662	Potassium	7440-09-7	1,810	11.9	52.8		1
01667	Sodium	7440-23-5	129	6.29	106		1
07968	Strontium	7440-24-6	17.5	0.0264	0.528		1
06969	Tin	7440-31-5	2.63 J	0.338	10.6		1
06970	Titanium	7440-32-6	1,090	0.0750	1.06		1
10146	Zirconium	7440-67-7	0.913 J	0.486	5.28		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	

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Analysis Report

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Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441965
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL204 SDG#: DE271-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0932 J	0.0782	0.211		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.80	0.0845	0.423		2
06126	Barium	7440-39-3	77.4	0.112	0.423		2
06127	Beryllium	7440-41-7	0.654	0.0169	0.106		2
06128	Cadmium	7440-43-9	0.0809 J	0.0465	0.106		2
06131	Chromium	7440-47-3	20.1	0.127	0.423		2
06132	Cobalt	7440-48-4	5.59	0.0211	0.106		2
06133	Copper	7440-50-8	7.09	0.0845	0.423		2
06135	Lead	7439-92-1	6.15	0.0108	0.211		2
06138	Molybdenum	7439-98-7	0.487	0.0528	0.106		2
06139	Nickel	7440-02-0	10.7	0.106	0.423		2
06141	Selenium	7782-49-2	0.144 J	0.0613	0.423		2
06142	Silver	7440-22-4	0.0314 J	0.0150	0.106		2
06145	Thallium	7440-28-0	0.306	0.0317	0.106		2
06148	Vanadium	7440-62-2	39.0	0.0232	0.106		2
06149	Zinc	7440-66-6	54.1	0.592	3.17		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.4	0.86	1.1		1
		EPA 314.0	ug/kg	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	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.44 J	0.22	1.1		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.54		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.72	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.2	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

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Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441965
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL204 SDG#: DE271-03

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-020-SA7-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11293SLB026	10/23/2011 02:01	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/22/2011 17:23	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11293SLB026	10/20/2011 16:45	JoElla L Rice	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11293A16A	10/21/2011 07:03	Laura M Krieger	24.27
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129225896	10/19/2011 22:00	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129225896	10/19/2011 22:01	Lois E Hiltz	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 04:01	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112920034A	10/19/2011 20:34	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112930029A	10/20/2011 21:19	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112920028A	10/21/2011 19:02	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112920027A	10/21/2011 05:15	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112920027A	10/20/2011 12:00	Olivia I Santiago	1
10303	Terphenyls soil prep	SW-846 3550B	1	112920028A	10/20/2011 12:00	Olivia I Santiago	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112920034A	10/19/2011 18:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112930029A	10/20/2011 16:05	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	112935708007	10/28/2011 05:15	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112935708007	10/26/2011 21:14	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112931026004D	10/24/2011 14:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2

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Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441965
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL204 SDG#: DE271-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112931026004C	10/24/2011 14:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112931026004B	10/24/2011 14:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112931026004A	10/24/2011 14:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112935711007	10/24/2011 17:42	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112935708007	10/21/2011 09:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112931026004	10/21/2011 09:42	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112935711007	10/21/2011 11:37	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 10:36	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202B	10/24/2011 17:12	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 14:57	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11293102201B	10/21/2011 08:21	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202B	10/20/2011 07:10	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11293102201B	10/20/2011 15:35	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402A	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 6

Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441966
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL209 SDG#: DE271-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	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	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	78	U 78	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	2,4-Dimethylphenol	105-67-9	39	U 39	190		1
04688	3,5-Dimethylphenol	108-68-9	39	U 39	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580		1
04688	2,4-Dinitrophenol	51-28-5	390	U 390	1,200		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	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	78	U 78	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	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
04688	4-Nitrophenol	100-02-7	190	U 190	580		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	580		1
04688	Phenol	108-95-2	19	U 19	190		1

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Analysis Report

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Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441966
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/19/2011 09:10

Suite 210

Reported: 11/18/2011 09:29

Chantilly VA 20151

SL209 SDG#: DE271-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	190	U 190	190		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	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	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	0.77	U 0.77	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.77	U 0.77	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.77	U 0.77	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.77	U 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	0.38	U 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	Bis(2-Ethylhexyl)phthalate	117-81-7	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	0.77	U 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	0.77	U 0.77	1.9		1
10138	Pyrene	129-00-0	0.77	U 0.77	1.9		1
GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
	mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.2		25.05
Pesticides/PCBs	SW-846 8082		ug/kg	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	0.39	U 0.39	2.0		1
10225	PCB-1232	11141-16-5	0.39	U 0.39	2.0		1
10225	PCB-1242	53469-21-9	0.39	U 0.39	2.0		1
10225	PCB-1248	12672-29-6	0.39	U 0.39	2.0		1

*=This limit was used in the evaluation of the final result

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Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441966
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/19/2011 09:10

Reported: 11/18/2011 09:29

SL209 SDG#: DE271-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.39 U	0.39	2.0		1
10225	PCB-1260	11096-82-5	0.46 U	0.46	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
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	120 U	120	580		1
10501	Isopropanol	67-63-0	120 U	120	580		1
10501	Methanol	67-56-1	120 U	120	580		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.8 U	5.8	12		1
08283	Ethylene glycol	107-21-1	5.8 U	5.8	12		1
08283	Propylene glycol	57-55-6	5.8 U	5.8	12		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.8 U	1.8	4.1		1
10318	o-Terphenyl	84-15-1	1.8 U	1.8	4.1		1
10318	p-Terphenyl	92-94-4	1.8 U	1.8	4.1		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.47 U	0.47	1.4		1
10199	EFH (C15-C20)	n.a.	0.47 U	0.47	1.4		1
10199	EFH (C21-C30)	n.a.	1.5	0.47	1.4		1
10199	EFH (C30 - C40)	n.a.	4.1	0.47	1.4		1
10199	EFH (C8-C11)	n.a.	0.47 U	0.47	1.4		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,300	6.80	22.5		1
07914	Boron	7440-42-8	0.404 U	0.404	5.62		1
01650	Calcium	7440-70-2	1,650	2.81	22.5		1
01654	Iron	7439-89-6	20,900	2.93	22.5		1
01656	Lithium	7439-93-2	22.2	0.70	2.2		1
01657	Magnesium	7439-95-4	2,880	0.494	11.2		1
06958	Manganese	7439-96-5	129	0.0404	0.562		1
10145	Phosphorus	7723-14-0	245	0.393	11.2		1
01662	Potassium	7440-09-7	1,140	12.7	56.2		1
01667	Sodium	7440-23-5	102 J	6.68	112		1
07968	Strontium	7440-24-6	11.3	0.0281	0.562		1
06969	Tin	7440-31-5	2.58 J	0.359	11.2		1
06970	Titanium	7440-32-6	828	0.0798	1.12		1
10146	Zirconium	7440-67-7	1.57 J	0.517	5.62		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	

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Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441966
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/19/2011 09:10

Reported: 11/18/2011 09:29

SL209 SDG#: DE271-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.230 J	0.0864	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	24.6	0.0935	0.467		2
06126	Barium	7440-39-3	79.8	0.124	0.467		2
06127	Beryllium	7440-41-7	1.60	0.0187	0.117		2
06128	Cadmium	7440-43-9	0.0514 U	0.0514	0.117		2
06131	Chromium	7440-47-3	27.3	0.140	0.467		2
06132	Cobalt	7440-48-4	5.98	0.0234	0.117		2
06133	Copper	7440-50-8	12.7	0.0935	0.467		2
06135	Lead	7439-92-1	13.1	0.0119	0.234		2
06138	Molybdenum	7439-98-7	2.95	0.0584	0.117		2
06139	Nickel	7440-02-0	15.3	0.117	0.467		2
06141	Selenium	7782-49-2	0.305 J	0.0678	0.467		2
06142	Silver	7440-22-4	0.0874 J	0.0166	0.117		2
06145	Thallium	7440-28-0	0.211	0.0350	0.117		2
06148	Vanadium	7440-62-2	77.4	0.0257	0.117		2
06149	Zinc	7440-66-6	49.7	0.654	3.50		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0143 J	0.0078	0.111		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.9	0.94	1.2		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.5 U	10.5	35.0		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.45 J	0.23	1.2		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.55		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.60	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	14.4	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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Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441966
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL209 SDG#: DE271-04

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-020-SA7-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11293SLB026	10/23/2011 02:26	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/24/2011 09:25	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11293SLB026	10/20/2011 16:45	JoElla L Rice	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11293A16A	10/21/2011 07:40	Laura M Krieger	25.05
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129225896	10/19/2011 22:02	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129225896	10/19/2011 22:04	Lois E Hiltz	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 04:20	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112920034A	10/19/2011 20:51	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112930029A	10/20/2011 21:32	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112920028A	10/21/2011 17:33	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112920027A	10/21/2011 05:39	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112920027A	10/20/2011 12:00	Olivia I Santiago	1
10303	Terphenyls soil prep	SW-846 3550B	1	112920028A	10/20/2011 12:00	Olivia I Santiago	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112920034A	10/19/2011 18:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112930029A	10/20/2011 16:05	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	112935708007	10/28/2011 05:19	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112935708007	10/26/2011 21:18	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112931026004D	10/24/2011 14:34	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441966
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL209 SDG#: DE271-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112931026004C	10/24/2011 14:34	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112931026004B	10/24/2011 14:34	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112931026004A	10/24/2011 14:34	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112935711007	10/24/2011 17:43	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112935708007	10/21/2011 09:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112931026004	10/21/2011 09:42	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112935711007	10/21/2011 11:37	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 10:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202B	10/24/2011 17:35	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 15:23	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11293102201B	10/21/2011 08:22	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202B	10/20/2011 07:10	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11293102201B	10/20/2011 15:35	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402B	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 6

Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441967
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL140 SDG#: DE271-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	840	180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	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

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Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441967
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/19/2011 09:10

Suite 210

Reported: 11/18/2011 09:29

Chantilly VA 20151

SL140 SDG#: DE271-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	20		1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	20		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	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	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5	U 6.5	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.5	U 6.5	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1
GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
	mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.1		24.95
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.9		1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.9		1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1

*=This limit was used in the evaluation of the final result

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Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441967
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL140 SDG#: DE271-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9		1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	550		1
10501	Isopropanol	67-63-0	110 U	110	550		1
10501	Methanol	67-56-1	110 U	110	550		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.5 U	5.5	11		1
08283	Ethylene glycol	107-21-1	5.5 U	5.5	11		1
08283	Propylene glycol	57-55-6	5.5 U	5.5	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.7 U	1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7 U	1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7 U	1.7	3.9		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.44 U	0.44	1.3		1
10199	EFH (C15-C20)	n.a.	0.44 U	0.44	1.3		1
10199	EFH (C21-C30)	n.a.	1.7	0.44	1.3		1
10199	EFH (C30 - C40)	n.a.	5.0	0.44	1.3		1
10199	EFH (C8-C11)	n.a.	0.44 U	0.44	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	26,000	6.56	21.7		1
07914	Boron	7440-42-8	0.390 U	0.390	5.42		1
01650	Calcium	7440-70-2	2,770	2.71	21.7		1
01654	Iron	7439-89-6	24,800	2.83	21.7		1
01656	Lithium	7439-93-2	31.8	0.67	2.2		1
01657	Magnesium	7439-95-4	3,690	0.477	10.8		1
06958	Manganese	7439-96-5	144	0.0390	0.542		1
10145	Phosphorus	7723-14-0	176	0.380	10.8		1
01662	Potassium	7440-09-7	1,090	12.3	54.2		1
01667	Sodium	7440-23-5	147	6.45	108		1
07968	Strontium	7440-24-6	19.5	0.0271	0.542		1
06969	Tin	7440-31-5	2.90 J	0.347	10.8		1
06970	Titanium	7440-32-6	863	0.0770	1.08		1
10146	Zirconium	7440-67-7	1.49 J	0.499	5.42		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441967
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/19/2011 09:10

Reported: 11/18/2011 09:29

SL140 SDG#: DE271-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0965 J	0.0810	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	6.03	0.0876	0.438		2
06126	Barium	7440-39-3	99.9	0.116	0.438		2
06127	Beryllium	7440-41-7	0.746	0.0175	0.110		2
06128	Cadmium	7440-43-9	0.0482 U	0.0482	0.110		2
06131	Chromium	7440-47-3	24.6	0.131	0.438		2
06132	Cobalt	7440-48-4	5.53	0.0219	0.110		2
06133	Copper	7440-50-8	5.24	0.0876	0.438		2
06135	Lead	7439-92-1	6.89	0.0112	0.219		2
06138	Molybdenum	7439-98-7	0.663	0.0548	0.110		2
06139	Nickel	7440-02-0	12.4	0.110	0.438		2
06141	Selenium	7782-49-2	0.359 J	0.0635	0.438		2
06142	Silver	7440-22-4	0.0460 J	0.0156	0.110		2
06145	Thallium	7440-28-0	0.204	0.0329	0.110		2
06148	Vanadium	7440-62-2	48.0	0.0241	0.110		2
06149	Zinc	7440-66-6	34.1	0.613	3.29		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0486 J	0.0075	0.107		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.1	0.88	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.2		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.60 J	0.22	1.1		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.20 U	0.20	0.55		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.54	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	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.						

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441967
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL140 SDG#: DE271-05

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-140-SA7-SB-3.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11293SLB026	10/23/2011 02:51	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11292SLE026	10/24/2011 09:58	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11292SLE026	10/20/2011 10:45	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11293SLB026	10/20/2011 16:45	JoElla L Rice	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11293A16A	10/21/2011 08:18	Laura M Krieger	24.95
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129225896	10/19/2011 22:06	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129225896	10/19/2011 22:07	Lois E Hiltz	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112920031A	10/23/2011 04:38	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112920031A	10/20/2011 06:50	Katheryne V Sponheimer	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112920034A	10/19/2011 21:07	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112930029A	10/20/2011 21:45	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112920028A	10/21/2011 17:56	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112920027A	10/21/2011 06:02	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112920027A	10/20/2011 12:00	Olivia I Santiago	1
10303	Terphenyls soil prep	SW-846 3550B	1	112920028A	10/20/2011 12:00	Olivia I Santiago	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112920034A	10/19/2011 18:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112930029A	10/20/2011 16:05	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
07914	Boron	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
01650	Calcium	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
01654	Iron	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
01656	Lithium	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
01657	Magnesium	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
06958	Manganese	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
01662	Potassium	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
01667	Sodium	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
07968	Strontium	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
06969	Tin	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
06970	Titanium	SW-846 6010B	1	112935708007	10/28/2011 05:22	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	112935708007	10/26/2011 21:22	John W Yanzuk II	1
06124	Antimony	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112931026004D	10/24/2011 14:37	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441967
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

SL140 SDG#: DE271-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112931026004C	10/24/2011 14:37	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112931026004B	10/24/2011 14:37	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112931026004A	10/24/2011 14:37	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112935711007	10/24/2011 17:44	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112935708007	10/21/2011 09:42	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112931026004	10/21/2011 09:42	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112935711007	10/21/2011 11:37	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 11:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11293621202B	10/24/2011 17:58	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 15:37	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11293102201B	10/21/2011 08:23	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11293621202B	10/20/2011 07:10	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11293102201B	10/20/2011 15:35	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402B	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: EB-SA7-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101811

LLI Sample # WW 6441968
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

EB118 SDG#: DE271-06EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	3.72	0.546	1.09		1
N-Nitrosodimethylamine was detected in the method blank at a concentration of .718 ng/l. The blank value was not subtracted from the analytical result. Sufficient sample was unavailable to repeat the analysis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11292WAA026	11/01/2011 19:55	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11292WAA026	10/19/2011 15:00	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: TB-101811 Water
SSFL Area IV Collocated Soil Sampling
TB-101811

LLI Sample # WW 6441969
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 08:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

TB118 SDG#: DE271-07TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.500 U	0.500	0.999		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11292WAA026	11/01/2011 20:14	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11292WAA026	10/19/2011 15:00	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 1

Sample Description: TB-101811 Sand
SSFL Area IV Collocated Soil Sampling
TB-101811

LLI Sample # SW 6441970
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 08:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

TB182 SDG#: DE271-08TB

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles	EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	16.7 U	16.7	33.3		1
Wet Chemistry	EPA 160.3 modified		%	%	%	%	
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11293SLE026	11/02/2011 22:21	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	1	11293SLE026	10/20/2011 18:00	Sally L Appleyard	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 1

Sample Description: TB-101811 Water
SSFL Area IV Collocated Soil Sampling
TB-101811

LLI Sample # WW 6441971
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 08:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

TB183 SDG#: DE271-09TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11297B20A	10/25/2011 11:20	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11297B20A	10/25/2011 11:20	Marie D John	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441972
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/19/2011 09:10

Suite 210

Reported: 11/18/2011 09:29

Chantilly VA 20151

EB182 SDG#: DE271-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	4.42	0.522	1.04		1
N-Nitrosodimethylamine was detected in the method blank at a concentration of .718 ng/l. The blank value was not subtracted from the analytical result. This sample was re-extracted outside of the method required holding time, and N-Nitrosodimethylamine was again detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.							
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1	U	1	5	1
04678	Benzidine	92-87-5	20	U	20	60	1
04678	Benzoic acid	65-85-0	6	U	6	15	1
04678	Benzyl alcohol	100-51-6	5	U	5	15	1
04678	4-Bromophenyl-phenylether	101-55-3	1	U	1	5	1
04678	2-butoxy-Ethanol	111-76-2	50	U	50	50	1
04678	Carbazole	86-74-8	1	U	1	5	1
04678	4-Chloro-3-methylphenol	59-50-7	1	U	1	5	1
04678	4-Chloroaniline	106-47-8	1	U	1	5	1
04678	bis(2-Chloroethoxy)methane	111-91-1	1	U	1	5	1
04678	bis(2-Chloroethyl)ether	111-44-4	1	U	1	5	1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1	U	1	5	1
04678	2-Chloronaphthalene	91-58-7	2	U	2	5	1
04678	2-Chlorophenol	95-57-8	1	U	1	5	1
04678	4-Chlorophenyl-phenylether	7005-72-3	2	U	2	5	1
04678	Dibenzofuran	132-64-9	1	U	1	5	1
04678	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
04678	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
04678	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
04678	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
04678	2,4-Dichlorophenol	120-83-2	1	U	1	5	1
04678	2,4-Dimethylphenol	105-67-9	3	U	3	10	1
04678	3,5-Dimethylphenol	108-68-9	3	U	3	10	1
04678	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
04678	2,4-Dinitrophenol	51-28-5	10	U	10	30	1
04678	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
04678	2,6-Dinitrotoluene	606-20-2	1	U	1	5	1
04678	1,2-Diphenylhydrazine	122-66-7	1	U	1	5	1
04678	Hexachlorobenzene	118-74-1	1	U	1	5	1
04678	Hexachlorobutadiene	87-68-3	1	U	1	5	1
04678	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
04678	Hexachloroethane	67-72-1	1	U	1	5	1
04678	Isophorone	78-59-1	1	U	1	5	1
04678	2-Methylphenol	95-48-7	1	U	1	5	1
04678	4-Methylphenol	106-44-5	2	U	2	5	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04678	2-Nitroaniline	88-74-4	1	U	1	5	1
04678	3-Nitroaniline	99-09-2	1	U	1	5	1
04678	4-Nitroaniline	100-01-6	1	U	1	5	1
04678	Nitrobenzene	98-95-3	1	U	1	5	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441972
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

EB182 SDG#: DE271-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	2-Nitrophenol	88-75-5	1 U	1	5		1
04678	4-Nitrophenol	100-02-7	10 U	10	30		1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	5		1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	5		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04678	Pentachlorophenol	87-86-5	3 U	3	15		1
04678	Phenol	108-95-2	1 U	1	5		1
04678	2-phenoxy-Ethanol	122-99-6	50 U	50	50		1
04678	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
04678	2,4,5-Trichlorophenol	95-95-4	1 U	1	5		1
04678	2,4,6-Trichlorophenol	88-06-2	1 U	1	5		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.020 U	0.020	0.10		1
10137	Acenaphthylene	208-96-8	0.020 U	0.020	0.10		1
10137	Anthracene	120-12-7	0.020 U	0.020	0.10		1
10137	Benzo(a)anthracene	56-55-3	0.020 U	0.020	0.10		1
10137	Benzo(a)pyrene	50-32-8	0.020 U	0.020	0.10		1
10137	Benzo(b)fluoranthene	205-99-2	0.020 U	0.020	0.10		1
10137	Benzo(g,h,i)perylene	191-24-2	0.020 U	0.020	0.10		1
10137	Benzo(k)fluoranthene	207-08-9	0.020 U	0.020	0.10		1
10137	Butylbenzylphthalate	85-68-7	0.10 U	0.10	2.0		1
10137	Di-n-butylphthalate	84-74-2	0.14 J	0.10	2.0		1
10137	Chrysene	218-01-9	0.020 U	0.020	0.10		1
10137	Dibenz(a,h)anthracene	53-70-3	0.020 U	0.020	0.10		1
10137	Diethylphthalate	84-66-2	0.10 U	0.10	2.0		1
10137	Dimethylphthalate	131-11-3	0.10 U	0.10	2.0		1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.10 U	0.10	2.0		1
10137	Fluoranthene	206-44-0	0.020 U	0.020	0.10		1
10137	Fluorene	86-73-7	0.020 U	0.020	0.10		1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.020 U	0.020	0.10		1
10137	1-Methylnaphthalene	90-12-0	0.020 U	0.020	0.10		1
10137	2-Methylnaphthalene	91-57-6	0.020 U	0.020	0.10		1
10137	Naphthalene	91-20-3	0.060 U	0.060	0.10		1
10137	N-Nitrosodimethylamine	62-75-9	0.020 U	0.020	0.10		1
10137	Di-n-octylphthalate	117-84-0	0.18 J	0.10	2.0		1
10137	Phenanthrene	85-01-8	0.060 U	0.060	0.10		1
10137	Pyrene	129-00-0	0.020 U	0.020	0.10		1

The recoveries of dimethylphthalate and butylbenzylphthalate were outside of QC limits in the LCS/LCSD. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. Comparable data was not observed between the two extractions. The data reported here is from the initial extraction of the sample.

Di-n-octylphthalate was detected in the method blank at a concentration of .094 ug/l. The blank value was not subtracted from the analytical result. Di-n-octylphthalate was not detected in the re-extraction of the sample.

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441972
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

EB182 SDG#: DE271-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Reporting limits were raised due to limited sample volume.								
GC Volatiles		TPH GRO SW-8015B	ug/l		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20	U	20	50		1
Explosives		SW-846 8330A	ug/l		ug/l	ug/l	ug/l	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.30	U	0.30	0.60	1000000 0	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.20	U	0.20	0.60	1000000 0	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.20	U	0.20	0.60	1000000 0	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.20	U	0.20	0.60	1000000 0	1
10131	1,3-Dinitrobenzene	99-65-0	0.20	U	0.20	0.60	1000000 0	1
10131	2,4-Dinitrotoluene	121-14-2	0.20	U	0.20	0.60	1000000 0	1
10131	2,6-Dinitrotoluene	606-20-2	0.20	U	0.20	0.60	1000000 0	1
10131	HMX	2691-41-0	0.65	U	0.65	2.0	1000000 0	1
10131	Nitrobenzene	98-95-3	0.20	U	0.20	0.60	1000000 0	1
10131	Nitroglycerin	55-63-0	5.2	U	5.2	15	1000000 0	1
10131	2-Nitrotoluene	88-72-2	0.20	U	0.20	0.60	1000000 0	1
10131	3-Nitrotoluene	99-08-1	0.40	U	0.40	1.2	1000000 0	1
10131	4-Nitrotoluene	99-99-0	0.60	U	0.60	1.2	1000000 0	1
10131	PETN	78-11-5	6.0	U	6.0	18	1000000 0	1
10131	RDX	121-82-4	1.6		0.20	0.60	1000000 0	1
10131	Tetryl	479-45-8	0.40	U	0.40	0.60	1000000 0	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.20	U	0.20	0.60	1000000 0	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.20	U	0.20	0.60	1000000 0	1
HPLC Organics		SW-846 8315A	ug/l		ug/l	ug/l	ug/l	
04144	20b Formaldehyde 8315A	50-00-0	10	U	10	50		1
Pesticides/PCBs		SW-846 8082	ug/l		ug/l	ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.10	U	0.10	0.52		1
10227	Aroclor 5442	12642-23-8	0.10	U	0.10	0.52		1
10227	Aroclor 5460	11126-42-4	0.10	U	0.10	0.52		1

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Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441972
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

EB182 SDG#: DE271-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/l		ug/l	ug/l	ug/l	
10227	PCB-1016	12674-11-2	0.10	U	0.10	0.52		1
10227	PCB-1221	11104-28-2	0.10	U	0.10	0.52		1
10227	PCB-1232	11141-16-5	0.21	U	0.21	0.52		1
10227	PCB-1242	53469-21-9	0.10	U	0.10	0.52		1
10227	PCB-1248	12672-29-6	0.10	U	0.10	0.52		1
10227	PCB-1254	11097-69-1	0.10	U	0.10	0.52		1
10227	PCB-1260	11096-82-5	0.16	U	0.16	0.52		1
10227	PCB-1262	37324-23-5	0.21	U	0.21	0.52		1
10227	PCB-1268	11100-14-4	0.17	U	0.17	0.52		1
GC Miscellaneous		SW-846 8015B	ug/l		ug/l	ug/l	ug/l	
06624	Ethanol	64-17-5	200	U	200	1,000		1
06624	Isopropanol	67-63-0	200	U	200	1,000		1
06624	Methanol	67-56-1	200	U	200	1,000		1
GC Miscellaneous		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
08278	Diethylene glycol	111-46-6	20	U	20	200		1
08278	Ethylene glycol	107-21-1	20	U	20	200		1
08278	Propylene glycol	57-55-6	20	U	20	200		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/l		mg/l	mg/l	mg/l	
10319	m-Terphenyl	92-06-8	0.082	U	0.082	0.25		1
10319	o-Terphenyl	84-15-1	0.082	U	0.082	0.25		1
10319	p-Terphenyl	92-94-4	0.082	U	0.082	0.25		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
10365	EFH (C12-C14)	n.a.	0.11	U	0.11	0.64		1
10365	EFH (C15-C20)	n.a.	0.11	U	0.11	0.64		1
10365	EFH (C21-C30)	n.a.	0.11	U	0.11	0.64		1
10365	EFH (C30 - C40)	n.a.	0.11	U	0.11	0.64		1
10365	EFH (C8-C11)	n.a.	0.11	U	0.11	0.64		1
Metals		SW-846 6010B	mg/l		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801	U	0.0801	0.200		1
08014	Boron	7440-42-8	0.0034	J	0.0022	0.0500		1
01750	Calcium	7440-70-2	0.0705	U	0.0705	0.200		1
01754	Iron	7439-89-6	0.0141	U	0.0141	0.200		1
01756	Lithium	7439-93-2	0.0076	U	0.0076	0.0200		1
01757	Magnesium	7439-95-4	0.0067	U	0.0067	0.100		1
07058	Manganese	7439-96-5	0.00044	U	0.00044	0.0050		1
10143	Phosphorus	7723-14-0	0.0047	U	0.0047	0.100		1
01762	Potassium	7440-09-7	0.0874	U	0.0874	0.500		1
01767	Sodium	7440-23-5	0.0647	U	0.0647	1.00		1
08068	Strontium	7440-24-6	0.00022	U	0.00022	0.0050		1

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Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441972
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/19/2011 09:10

Reported: 11/18/2011 09:29

EB182 SDG#: DE271-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
07069	Tin	7440-31-5	0.0043 U	0.0043	0.0200		1
07070	Titanium	7440-32-6	0.00046 U	0.00046	0.0100		1
10144	Zirconium	7440-67-7	0.0042 U	0.0042	0.0500		1
		SW-846 6020	mg/l	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042 U	0.00042	0.0010		1
06025	Arsenic	7440-38-2	0.00095 U	0.00095	0.0020		1
06026	Barium	7440-39-3	0.00069 U	0.00069	0.0020		1
06027	Beryllium	7440-41-7	0.00013 U	0.00013	0.00050		1
06028	Cadmium	7440-43-9	0.00020 U	0.00020	0.00050		1
06031	Chromium	7440-47-3	0.00060 U	0.00060	0.0020		1
06032	Cobalt	7440-48-4	0.00010 U	0.00010	0.00050		1
06033	Copper	7440-50-8	0.00038 U	0.00038	0.0020		1
06035	Lead	7439-92-1	0.000080 U	0.000080	0.0010		1
06038	Molybdenum	7439-98-7	0.00025 U	0.00025	0.00050		1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020		1
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020		1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050		1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050		1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050		1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150		1
		SW-846 7470A	mg/l	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000026 U	0.000026	0.00020		1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10		1
00368	11b Anions by 300.0 - Nitrate	14797-55-8	0.050 U	0.050	0.10		1
		EPA 314.0	ug/l	ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0		1
		SW-846 7199	ug/l	ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0		1
		SW-846 9012B	mg/l	mg/l	mg/l	mg/l	
08255	16b Cyanide by 9012B	57-12-5	0.0050 U	0.0050	0.010		1
		SW-846 9040B	Std. Units	Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	6.1	0.010	0.010		1

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Analysis Report

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Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441972
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

EB182 SDG#: DE271-10EB*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11292WAA026	11/01/2011 20:51	Matthew S Woods	1
04678	5b Semivolatiles by EPA 8270C	SW-846 8270C	1	11297WAI026	10/26/2011 19:09	Holly Berry	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11297WAE026	10/25/2011 10:07	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	11297WAI026	10/25/2011 09:00	Cynthia J Salvatori	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11297WAE026	10/24/2011 17:00	JoElla L Rice	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11292WAA026	10/19/2011 15:00	Wanda F Oswald	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11294B20A	10/24/2011 14:07	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11294B20A	10/24/2011 14:07	Catherine J Schwarz	1
10131	15b Energetics by 8330A	SW-846 8330A	1	112930023A	10/27/2011 10:49	Michele D Hamilton	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	112930018A	10/21/2011 19:25	James H Place	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	112980001A	11/01/2011 02:23	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	112980001A	10/25/2011 16:55	JoElla L Rice	1
01013	Formaldehyde Extraction	SW-846 8315A	1	112930018A	10/21/2011 09:15	Denise L Trimby	1
11122	Energetics Extraction	SW-846 8330	1	112930023A	10/21/2011 09:30	Kerrie A Freeburn	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	112930031A	10/21/2011 20:42	Elizabeth J Marin	1
08278	19b Glycols by 8015B	SW-846 8015B modified	1	112970039A	10/24/2011 23:09	Tyler O Griffin	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	112930011A	10/21/2011 14:58	Robert Brown	1
10365	9b TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112940018A	10/25/2011 13:37	Heather E Williams	1
11203	EPH Waters Extraction	SW-846 3510C	1	112940018A	10/22/2011 10:50	Denise L Trimby	1
10304	Terphenyls water prep	SW-846 3510C	1	112930011A	10/20/2011 14:40	Kathryn I DeHaven	1
01743	Aluminum	SW-846 6010B	1	112921848006	10/24/2011 02:13	Tara L Snyder	1
08014	Boron	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
01750	Calcium	SW-846 6010B	1	112921848006	10/24/2011 02:13	Tara L Snyder	1
01754	Iron	SW-846 6010B	1	112921848006	10/24/2011 02:13	Tara L Snyder	1
01756	Lithium	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
01757	Magnesium	SW-846 6010B	1	112921848006	10/24/2011 02:13	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
10143	Phosphorus	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
01762	Potassium	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
01767	Sodium	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
08068	Strontium	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
07069	Tin	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
07070	Titanium	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
10144	Zirconium	SW-846 6010B	1	112921848006	10/21/2011 20:01	John P Hook	1
06024	Antimony	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1

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Analysis Report

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Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441972
LLI Group # 1271993
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 11/18/2011 09:29

Suite 210

Chantilly VA 20151

EB182 SDG#: DE271-10EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06025	Arsenic	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06026	Barium	SW-846 6020	1	112926050003D	10/24/2011 09:48	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06033	Copper	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06035	Lead	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	112926050003C	10/24/2011 09:48	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	112926050003B	10/24/2011 09:48	Choon Y Tian	1
06042	Silver	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	112926050003A	10/24/2011 09:48	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	112945713004	10/25/2011 12:53	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	112921848006	10/20/2011 09:39	Denise K Connors	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	112926050003	10/20/2011 09:36	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	112945713004	10/21/2011 16:31	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11291196903A	10/19/2011 11:49	Ashley M Adams	1
00368	11b Anions by 300.0 - Nitrate	EPA 300.0	1	11291196903A	10/19/2011 11:49	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	2	11292281101A	10/24/2011 18:21	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11292281401B	10/19/2011 11:38	Elyse P Brunstetter	1
08255	16b Cyanide by 9012B	SW-846 9012B	1	11297117101B	10/24/2011 16:35	Venia B McFadden	1
08256	Cyanide Water Distillation	SW-846 9012B	1	11297117101B	10/24/2011 10:15	Nancy J Shoop	1
00200	17b pH by 9040B	SW-846 9040B	1	11294020001A	10/21/2011 20:30	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11292SLE026	Sample number(s): 6441963-6441967								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	91		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	84		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	91		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	96		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	88		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	100		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	95		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	94		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	93		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	98		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	98		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	91		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	95		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	95		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	102		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	97		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	93		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	92		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	83		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	84		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	89		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	89		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	89		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	93		72-119		
Batch number: 11292WAA026	Sample number(s): 6441968-6441969, 6441972								
N-Nitrosodimethylamine	0.718 J	0.500	1.00	ng/l	94	100	70-130	6	30
Batch number: 11293SLB026	Sample number(s): 6441963-6441967								
Aniline	170 U	170.	500	ug/kg	78		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	63		15-121		
Benzoic acid	170 U	170.	500	ug/kg	77		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	91		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	98		73-114		
Carbazole	17 U	17.	170	ug/kg	97		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	96		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	73		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	94		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	90		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	90		62-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

<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>
2-Chloronaphthalene	17 U	17.	170	ug/kg	92		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	97		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	97		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	95		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	88		74-99		
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 U	100.	330	ug/kg	71		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	98		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	97		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	117		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	60		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	31		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	96		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	99		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	104		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	96		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	94		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	81		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	86		61-109		
Isophorone	17 U	17.	170	ug/kg	92		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	94		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	91		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	97		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	95		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	74		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	94		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	93		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	91		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	84		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	101		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	70		51-117		
Phenol	17 U	17.	170	ug/kg	89		58-112		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	91		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	96		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	97		78-111		
Batch number: 11293SLE026	Sample number(s): 6441970								
N-Nitrosodimethylamine	16.7 U	16.7	33.3	ng/kg	104	101	70-130	3	30
Batch number: 11297WAE026	Sample number(s): 6441972								
Acenaphthene	0.010 U	0.010	0.050	ug/l	96	101	74-109	5	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	93	95	70-110	2	30
Anthracene	0.010 U	0.010	0.050	ug/l	97	99	66-111	2	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	101	102	72-114	1	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	93	93	60-127	0	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	98	99	58-151	1	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	112	113	57-131	1	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	99	99	59-130	0	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	22*	21*	40-138	4	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS %REC	LCS/LCSD Limits	RPD	RPD Max
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	60	61	56-148	2	30
Chrysene	0.010 U	0.010	0.050	ug/l	100	102	76-116	1	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	111	111	55-134	1	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	48	47	37-148	2	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	10*	10*	40-119	2	30
Bis(2-Ethylhexyl)phthalate	0.050 U	0.050	1.0	ug/l	106	103	57-154	3	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	97	98	75-116	2	30
Fluorene	0.010 U	0.010	0.050	ug/l	101	101	75-114	0	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	109	110	53-158	1	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	92	93	71-117	0	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	91	92	75-115	1	30
Naphthalene	0.030 U	0.030	0.050	ug/l	92	93	72-109	1	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	64	65	36-89	1	30
Di-n-octylphthalate	0.094 J	0.050	1.0	ug/l	96	96	57-145	1	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	94	96	76-111	2	30
Pyrene	0.010 U	0.010	0.050	ug/l	104	104	69-118	0	30

Batch number: 11297WAI026

Sample number(s): 6441972

Aniline	1	U	1.	5	ug/l	74	78	38-116	5	30
Benzidine	20	U	20.	60	ug/l	52	48	34-117	7	30
Benzoic acid	6	U	6.	15	ug/l	44	47	10-69	8	30
Benzyl alcohol	5	U	5.	15	ug/l	84	88	66-97	5	30
4-Bromophenyl-phenylether	1	U	1.	5	ug/l	95	101	75-115	5	30
2-butoxy-Ethanol	50	U	50.	50	ug/l					
Carbazole	1	U	1.	5	ug/l	99	101	75-120	2	30
4-Chloro-3-methylphenol	1	U	1.	5	ug/l	101	102	70-123	1	30
4-Chloroaniline	1	U	1.	5	ug/l	63	59	24-128	6	30
bis(2-Chloroethoxy)methane	1	U	1.	5	ug/l	99	102	74-124	3	30
bis(2-Chloroethyl)ether	1	U	1.	5	ug/l	88	95	77-108	8	30
bis(2-Chloroisopropyl)ether	1	U	1.	5	ug/l	84	93	62-127	10	30
2-Chloronaphthalene	2	U	2.	5	ug/l	72	75	54-132	3	30
2-Chlorophenol	1	U	1.	5	ug/l	95	100	71-114	5	30
4-Chlorophenyl-phenylether	2	U	2.	5	ug/l	98	97	77-114	1	30
Dibenzofuran	1	U	1.	5	ug/l	95	95	75-117	0	30
1,2-Dichlorobenzene	1	U	1.	5	ug/l	81	86	55-118	7	30
1,3-Dichlorobenzene	1	U	1.	5	ug/l	78	85	61-111	8	30
1,4-Dichlorobenzene	1	U	1.	5	ug/l	79	84	53-119	6	30
3,3'-Dichlorobenzidine	2	U	2.	5	ug/l	58	57	37-117	1	30
2,4-Dichlorophenol	1	U	1.	5	ug/l	103	103	77-117	0	30
2,4-Dimethylphenol	3	U	3.	10	ug/l	98	97	72-110	1	30
3,5-Dimethylphenol	3	U	3.	10	ug/l	103	106	70-130	3	30
4,6-Dinitro-2-methylphenol	5	U	5.	15	ug/l	104	108	65-126	4	30
2,4-Dinitrophenol	10	U	10.	30	ug/l	100	102	52-131	2	30
2,4-Dinitrotoluene	1	U	1.	5	ug/l	102	101	76-119	1	30
2,6-Dinitrotoluene	1	U	1.	5	ug/l	100	102	76-118	2	30
1,2-Diphenylhydrazine	1	U	1.	5	ug/l	97	102	68-127	5	30
Hexachlorobenzene	1	U	1.	5	ug/l	97	100	75-119	4	30
Hexachlorobutadiene	1	U	1.	5	ug/l	85	87	57-124	3	30
Hexachlorocyclopentadiene	5	U	5.	15	ug/l	56	54	36-118	3	30
Hexachloroethane	1	U	1.	5	ug/l	74	80	52-113	8	30
Isophorone	1	U	1.	5	ug/l	96	100	74-117	4	30
2-Methylphenol	1	U	1.	5	ug/l	92	98	58-110	7	30
4-Methylphenol	2	U	2.	5	ug/l	85	91	49-108	7	30
2-Nitroaniline	1	U	1.	5	ug/l	100	102	75-120	2	30
3-Nitroaniline	1	U	1.	5	ug/l	99	98	74-113	1	30
4-Nitroaniline	1	U	1.	5	ug/l	86	86	59-100	0	30
Nitrobenzene	1	U	1.	5	ug/l	93	98	75-109	6	30
2-Nitrophenol	1	U	1.	5	ug/l	98	99	76-118	1	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4-Nitrophenol	10 U	10.	30	ug/l	57	54	16-78	6	30
N-Nitroso-di-n-propylamine	1 U	1.	5	ug/l	86	93	69-110	8	30
N-Nitrosodiphenylamine	2 U	2.	5	ug/l	90	94	67-136	4	30
Pentachlorophenol	3 U	3.	15	ug/l	111*	112*	53-110	1	30
Phenol	1 U	1.	5	ug/l	51	61	21-67	18	30
2-phenoxy-Ethanol	50 U	50.	50	ug/l					
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	88	91	71-112	3	30
2,4,5-Trichlorophenol	1 U	1.	5	ug/l	98	100	79-107	2	30
2,4,6-Trichlorophenol	1 U	1.	5	ug/l	102	101	76-120	0	30

Batch number: 11293A16A
9a TPH by EPA 8015B Gas C5-C12

Sample number(s): 6441965-6441967
0.2 U 0.2 1.0 mg/kg

76 67-119

Batch number: 11294B20A
TPH-GRO S.CA water C5-C12

Sample number(s): 6441972
20 U 20. 50 ug/l

109 109 75-135 0 30

Batch number: 11297B20A
TPH-GRO S.CA water C5-C12

Sample number(s): 6441971
20 U 20. 50 ug/l

109 109 75-135 0 30

Batch number: 112930023A
4-Amino-2,6-Dinitrotoluene
2-Amino-4,6-Dinitrotoluene
2,6-Diamino-4-nitrotoluene
2,4-Diamino-6-nitrotoluene
1,3-Dinitrobenzene
2,4-Dinitrotoluene
2,6-Dinitrotoluene
HMX
Nitrobenzene
Nitroglycerin
2-Nitrotoluene
3-Nitrotoluene
4-Nitrotoluene
PETN
RDX
Tetryl
1,3,5-Trinitrobenzene
2,4,6-Trinitrotoluene

Sample number(s): 6441972
0.30 U 0.30 0.60 ug/l
0.20 U 0.20 0.60 ug/l
0.20 U 0.20 0.60 ug/l
0.20 U 0.20 0.60 ug/l
0.20 U 0.20 0.60 ug/l
0.20 U 0.20 0.60 ug/l
0.20 U 0.20 0.60 ug/l
0.65 U 0.65 2.0 ug/l
0.20 U 0.20 0.60 ug/l
5.2 U 5.2 15 ug/l
0.20 U 0.20 0.60 ug/l
0.40 U 0.40 1.2 ug/l
0.60 U 0.60 1.2 ug/l
6.0 U 6.0 18 ug/l
0.20 U 0.20 0.60 ug/l
0.40 U 0.40 0.60 ug/l
0.20 U 0.20 0.60 ug/l
0.20 U 0.20 0.60 ug/l

110 100 80-120 10 30
98 95 80-120 3 30
93 93 50-122 0 30
93 93 50-122 0 30
100 99 72-117 1 30
94 92 80-120 2 30
100 100 80-120 0 30
91 87 65-125 4 30
94 91 75-121 3 30
96 92 80-120 4 30
94 91 74-120 3 30
98 96 69-107 2 30
92 90 80-120 2 30
100 100 80-120 0 30
89 86 70-125 3 30
81 80 31-148 1 30
87 100 53-129 14 30
100 98 76-109 2 30

Batch number: 112930018A
20b Formaldehyde 8315A

Sample number(s): 6441972
10 U 10. 50 ug/l

92 96 69-130 4 30

Batch number: 112920031A
Aroclor 5432
Aroclor 5442
Aroclor 5460
PCB-1016
PCB-1221
PCB-1232
PCB-1242
PCB-1248
PCB-1254
PCB-1260
PCB-1262
PCB-1268

Sample number(s): 6441963-6441967
1.0 U 1.0 3.3 ug/kg
1.0 U 1.0 3.3 ug/kg
1.0 U 1.0 3.3 ug/kg
0.33 U 0.33 1.7 ug/kg
0.33 U 0.33 1.7 ug/kg
0.33 U 0.33 1.7 ug/kg
0.33 U 0.33 1.7 ug/kg
0.33 U 0.33 1.7 ug/kg
0.33 U 0.33 1.7 ug/kg
0.39 U 0.39 1.7 ug/kg
0.33 U 0.33 1.7 ug/kg
0.33 U 0.33 1.7 ug/kg

66 67 36-106 0 30
88 72-120
96 65-137

Batch number: 112980001A
Aroclor 5432

Sample number(s): 6441972
0.10 U 0.10 0.50 ug/l

*- 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: 11/18/11 at 09:29 AM

Group Number: 1271993

<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>
Aroclor 5442	0.10 U	0.10	0.50	ug/l	64	62	35-84	3	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	90	90	51-128	0	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	100	104	56-135	4	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					
Batch number: 112920034A	Sample number(s): 6441965-6441967								
Ethanol	100 U	100.	500	ug/kg	85		71-129		
Isopropanol	100 U	100.	500	ug/kg	89		75-125		
Methanol	100 U	100.	500	ug/kg	76		68-129		
Batch number: 112930029A	Sample number(s): 6441965-6441967								
Diethylene glycol	5.0 U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	102		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	98		67-131		
Batch number: 112930031A	Sample number(s): 6441972								
Ethanol	200 U	200.	1,000	ug/l	100		78-116		
Isopropanol	200 U	200.	1,000	ug/l	100		75-125		
Methanol	200 U	200.	1,000	ug/l	104		76-122		
Batch number: 112970039A	Sample number(s): 6441972								
Diethylene glycol	20 U	20.	200	mg/l	105		67-126		
Ethylene glycol	20 U	20.	200	mg/l	80		78-136		
Propylene glycol	20 U	20.	200	mg/l	80		65-132		
Batch number: 112920027A	Sample number(s): 6441965-6441967								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	94		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	96		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	97		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	85		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	83		49-107		
Batch number: 112920028A	Sample number(s): 6441965-6441967								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	100		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	105		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	98		69-109		
Batch number: 112930011A	Sample number(s): 6441972								
m-Terphenyl	0.080 U	0.080	0.25	mg/l	104	106	61-108	2	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	108	110	75-125	2	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	104	108	63-110	4	20
Batch number: 112940018A	Sample number(s): 6441972								
EFH (C12-C14)	0.10 U	0.10	0.60	mg/l	114	100	63-121	13	30
EFH (C15-C20)	0.10 U	0.10	0.60	mg/l	108	103	72-124	5	30

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C21-C30)	0.10 U	0.10	0.60	mg/l	85	85	64-123	0	30
EFH (C30 - C40)	0.10 U	0.10	0.60	mg/l	100	80	73-124	22	30
EFH (C8-C11)	0.10 U	0.10	0.60	mg/l	114*	100	43-107	13	30

Batch number: 112921848006	Sample number(s): 6441972								
Aluminum	0.0801 U	0.0801	0.200	mg/l	100	99	90-112	0	20
Boron	0.0022 U	0.0022	0.0500	mg/l	93	89	89-110	5	20
Calcium	0.0705 U	0.0705	0.200	mg/l	97	97	90-110	0	20
Iron	0.0141 U	0.0141	0.200	mg/l	101	101	90-112	0	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	98	97	90-110	1	20
Magnesium	0.0067 U	0.0067	0.100	mg/l	99	100	90-110	1	20
Manganese	0.00046 J	0.00044	0.0050	mg/l	99	95	90-110	4	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	99	98	90-110	1	20
Potassium	0.0874 U	0.0874	0.500	mg/l	101	97	85-115	3	20
Sodium	0.0647 U	0.0647	1.00	mg/l	100	97	87-114	3	20
Strontium	0.00022 U	0.00022	0.0050	mg/l	99	94	90-110	5	20
Tin	0.0043 U	0.0043	0.0200	mg/l	95	94	90-110	1	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	101	95	90-113	6	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	102	99	90-110	3	20

Batch number: 112926050003A	Sample number(s): 6441972								
Antimony	0.00042 U	0.00042	0.0010	mg/l	106	97	87-110	10	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	98	101	86-111	2	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	106	106	90-113	0	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	95	104	90-114	8	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	102	107	90-118	5	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	102	101	87-113	1	20
Copper	0.00038 U	0.00038	0.0020	mg/l	105	103	90-113	1	20
Lead	0.000080 U	0.00008	0.0010	mg/l	105	104	90-115	0	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	103	103	90-113	0	20
Silver	0.000098 U	0.00009	0.00050	mg/l	103	101	90-115	3	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	106	97	89-116	9	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	104	106	89-116	2	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	100	109	90-116	8	20

Batch number: 112926050003B	Sample number(s): 6441972								
Selenium	0.00027 U	0.00027	0.0020	mg/l	108	106	85-114	2	20

Batch number: 112926050003C	Sample number(s): 6441972								
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	104	98	89-115	6	20

Batch number: 112926050003D	Sample number(s): 6441972								
Barium	0.00069 U	0.00069	0.0020	mg/l	99	98	88-113	1	20

Batch number: 112931026004A	Sample number(s): 6441963-6441967								
Antimony	0.0733 U	0.0733	0.198	mg/kg	75		40-227		
Arsenic	0.0792 U	0.0792	0.396	mg/kg	104		83-111		
Beryllium	0.0158 U	0.0158	0.0990	mg/kg	96		84-112		
Cadmium	0.0436 U	0.0436	0.0990	mg/kg	99		83-111		
Chromium	0.119 U	0.119	0.396	mg/kg	111		77-123		
Cobalt	0.0198 U	0.0198	0.0990	mg/kg	105		85-114		
Copper	0.117 J	0.0792	0.396	mg/kg	103		81-110		
Lead	0.0110 J	0.0101	0.198	mg/kg	100		84-112		
Nickel	0.0990 U	0.0990	0.396	mg/kg	100		81-110		
Silver	0.0141 U	0.0141	0.0990	mg/kg	104		83-112		
Thallium	0.0297 U	0.0297	0.0990	mg/kg	104		82-112		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

<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>
Vanadium	0.195	0.0218	0.0990	mg/kg	101		76-110		
Zinc	0.554 U	0.554	2.97	mg/kg	98		82-110		
Batch number: 112931026004B	Sample number(s): 6441963-6441967								
Selenium	0.0574 U	0.0574	0.396	mg/kg	98		79-110		
Batch number: 112931026004C	Sample number(s): 6441963-6441967								
Molybdenum	0.0581 J	0.0495	0.0990	mg/kg	100		80-110		
Batch number: 112931026004D	Sample number(s): 6441963-6441967								
Barium	0.105 U	0.105	0.396	mg/kg	105		83-110		
Batch number: 112935708007	Sample number(s): 6441963-6441967								
Aluminum	5.99 U	5.99	19.8	mg/kg	90		40-127		
Boron	0.356 U	0.356	4.95	mg/kg	104		83-110		
Calcium	4.81 J	2.48	19.8	mg/kg	103		81-110		
Iron	9.83 J	2.58	19.8	mg/kg	86		47-129		
Lithium	0.61 U	0.61	2.0	mg/kg	101		80-120		
Magnesium	0.564 J	0.436	9.90	mg/kg	93		63-116		
Manganese	0.0356 U	0.0356	0.495	mg/kg	106		85-116		
Phosphorus	1.17 J	0.347	9.90	mg/kg	105		80-120		
Potassium	11.2 U	11.2	49.5	mg/kg	100		71-110		
Sodium	5.89 U	5.89	99.0	mg/kg	104		76-110		
Strontium	0.0248 U	0.0248	0.495	mg/kg	104		84-110		
Tin	1.40 J	0.317	9.90	mg/kg	100		86-120		
Titanium	0.0703 U	0.0703	0.990	mg/kg	91		80-120		
Zirconium	0.455 U	0.455	4.95	mg/kg	102		80-120		
Batch number: 112935711007	Sample number(s): 6441963-6441967								
Mercury	0.0069 U	0.0069	0.0980	mg/kg	101		83-119		
Batch number: 112945713004	Sample number(s): 6441972								
Mercury	0.000026 U	0.00002	0.00020	mg/l	101	96	80-120	5	20
Batch number: 11291196903A	Sample number(s): 6441972								
11b Anions by 300.0 - Fluoride	0.080 U	0.080	0.10	mg/l	109	108	90-110	1	20
11b Anions by 300.0 - Nitrate	0.050 U	0.050	0.10	mg/l	108	107	90-110	0	20
Batch number: 11292281101A	Sample number(s): 6441972								
7b Perchlorate EPA 314.0	0.70 U	0.70	2.0	ug/l	93	95	85-115	1	20
Batch number: 11292281401B	Sample number(s): 6441972								
3b Cr VI by EPA 7199	5.0 U	5.0	10.0	ug/l	105	107	90-110	2	20
Batch number: 11293102201B	Sample number(s): 6441965-6441967								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	85		80-120		
Batch number: 11293621202B	Sample number(s): 6441963-6441967								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	105		85-115		
Batch number: 11297117101B	Sample number(s): 6441972								
16b Cyanide by 9012B	0.0050 U	0.0050	0.010	mg/l	101	101	90-110	0	20
Batch number: 11298243201A	Sample number(s): 6441963-6441967								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	89		80-120		
Batch number: 11300621201A	Sample number(s): 6441963-6441967								

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

<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>
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	110		90-110		
Batch number: 11294020001A	Sample number(s): 6441972				100	100	90-110	0	3
17b pH by 9040B									
Batch number: 11300039402A	Sample number(s): 6441963-6441965				100		95-105		
17a pH by 9045C									
Batch number: 11300039402B	Sample number(s): 6441966-6441967				100		95-105		
17a pH by 9045C									
Batch number: 11298162401B	Sample number(s): 6441963-6441967, 6441970				100		80-120		
Moisture Content by 160.3									

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: 11292SLE026	Sample number(s): 6441963-6441967 UNSPK: P439922								
Acenaphthene	81	85	63-105	5	30				
Acenaphthylene	76	80	67-114	6	30				
Anthracene	84	86	73-115	3	30				
Benzo(a)anthracene	89	88	59-128	1	30				
Benzo(a)pyrene	81	81	58-142	0	30				
Benzo(b)fluoranthene	87	88	54-163	1	30				
Benzo(g,h,i)perylene	86	87	33-141	2	30				
Benzo(k)fluoranthene	85	88	57-153	3	30				
Butylbenzylphthalate	87	90	57-173	4	30				
Di-n-butylphthalate	89	89	65-148	0	30				
Chrysene	89	89	67-123	0	30				
Dibenz(a,h)anthracene	84	83	22-133	0	30				
Diethylphthalate	86	88	70-136	1	30				
Dimethylphthalate	87	90	74-118	4	30				
Bis(2-Ethylhexyl)phthalate	103	101	39-167	2	30				
Fluoranthene	88	90	51-149	2	30				
Fluorene	73	88	66-122	18	30				
Indeno(1,2,3-cd)pyrene	84	85	21-143	1	30				
1-Methylnaphthalene	75	80	72-123	6	30				
2-Methylnaphthalene	75	79	64-103	5	30				
Naphthalene	77	80	61-102	5	30				
N-Nitrosodimethylamine	85	90	48-113	6	30				
Di-n-octylphthalate	83	82	40-192	1	30				
Phenanthrene	81	85	62-122	5	30				
Pyrene	85	85	51-131	0	30				
Batch number: 11293SLB026	Sample number(s): 6441963-6441967 UNSPK: 6441963								
Aniline	72	74	18-116	2	30				
Benzidine	16*	15*	35-141	6	30				
Benzoic acid	26	32	10-173	6	30				
Benzyl alcohol	92	93	67-115	1	30				
4-Bromophenyl-phenylether	101	102	67-129	1	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Carbazole	96	96	64-120	0	30				
4-Chloro-3-methylphenol	91	91	62-122	0	30				
4-Chloroaniline	66	74	13-107	12	30				
bis(2-Chloroethoxy)methane	94	96	75-104	2	30				
bis(2-Chloroethyl) ether	89	91	60-116	2	30				
bis(2-Chloroisopropyl) ether	92	94	55-142	3	30				
2-Chloronaphthalene	88	92	50-141	5	30				
2-Chlorophenol	96	98	73-121	2	30				
4-Chlorophenyl-phenylether	98	99	80-109	1	30				
Dibenzofuran	95	96	71-112	2	30				
1,2-Dichlorobenzene	88	90	66-108	2	30				
1,3-Dichlorobenzene	88	89	63-109	2	30				
1,4-Dichlorobenzene	87	90	58-108	3	30				
3,3'-Dichlorobenzidine	72	75	28-109	4	30				
2,4-Dichlorophenol	96	97	66-123	1	30				
2,4-Dimethylphenol	94	93	68-118	0	30				
3,5-Dimethylphenol	112	117	71-127	4	30				
4,6-Dinitro-2-methylphenol	49	53	11-126	9	30				
2,4-Dinitrophenol	28	31	20-143	11	30				
2,4-Dinitrotoluene	95	96	56-129	1	30				
2,6-Dinitrotoluene	100	100	69-123	1	30				
1,2-Diphenylhydrazine	104	104	71-129	0	30				
Hexachlorobenzene	98	99	77-114	1	30				
Hexachlorobutadiene	95	98	62-120	3	30				
Hexachlorocyclopentadiene	66	65	10-153	2	30				
Hexachloroethane	87	87	57-109	0	30				
Isophorone	92	93	73-102	1	30				
2-Methylphenol	92	92	75-111	0	30				
4-Methylphenol	88	88	59-123	0	30				
2-Nitroaniline	97	98	67-125	2	30				
3-Nitroaniline	92	92	59-122	0	30				
4-Nitroaniline	78	82	41-109	4	30				
Nitrobenzene	97	97	57-125	0	30				
2-Nitrophenol	95	96	56-127	2	30				
4-Nitrophenol	87	90	37-129	3	30				
N-Nitroso-di-n-propylamine	85	85	60-116	1	30				
N-Nitrosodiphenylamine	101	103	71-122	2	30				
Pentachlorophenol	85	83	28-127	2	30				
Phenol	86	87	58-126	1	30				
1,2,4-Trichlorobenzene	94	96	72-115	2	30				
2,4,5-Trichlorophenol	100	101	58-129	2	30				
2,4,6-Trichlorophenol	102	102	56-134	0	30				

Batch number: 11293A16A Sample number(s): 6441965-6441967 UNSPK: P437195
9a TPH by EPA 8015B Gas C5-C12 77 76 39-118 9 30

Batch number: 112920031A Sample number(s): 6441963-6441967 UNSPK: P439922
PCB-1016 72 65 29-146 11 50
PCB-1260 83 75 39-149 11 50

Batch number: 112920034A Sample number(s): 6441965-6441967 UNSPK: P439920
Ethanol 81 80 48-130 1 20
Isopropanol 82 82 12-149 1 20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Methanol	85	86	43-138	1	20			
Batch number: 112930029A	Sample number(s): 6441965-6441967 UNSPK: P435690							
Diethylene glycol	5*	8*	59-109	42*	20			
Ethylene glycol	47*	45*	63-107	6	20			
Propylene glycol	65	62*	63-107	5	20			
Batch number: 112930031A	Sample number(s): 6441972 UNSPK: P442022							
Ethanol	92	88	62-145	4	20			
Isopropanol	103	99	73-131	4	20			
Methanol	82	70	52-159	11	20			
Batch number: 112970039A	Sample number(s): 6441972 UNSPK: P443499							
Diethylene glycol	105	114	83-130	9	20			
Ethylene glycol	70*	90	89-125	25*	20			
Propylene glycol	75*	90*	91-128	18	20			
Batch number: 112920027A	Sample number(s): 6441965-6441967 UNSPK: P437195							
EFH (C12-C14)	82	89	49-123	8	20			
EFH (C15-C20)	81	98	49-123	13	20			
EFH (C21-C30)	102	117	49-123	7	20			
EFH (C30 - C40)	110	138*	49-123	8	20			
EFH (C8-C11)	0*	5*	49-123	10	20			
Batch number: 112920028A	Sample number(s): 6441965-6441967 UNSPK: P437195							
m-Terphenyl	97	98	75-125	2	20			
o-Terphenyl	102	103	75-125	1	20			
p-Terphenyl	95	97	75-125	2	20			
Batch number: 112931026004A	Sample number(s): 6441963-6441967 UNSPK: 6441965 BKG: 6441965							
Antimony	39*	46*	75-125	15	20	0.0865 J	0.0985 J	13 (1) 20
Arsenic	101	188*	75-125	24*	20	4.45	5.07	13 20
Beryllium	97	138*	75-125	22*	20	0.606	0.712	16 20
Cadmium	115	135*	75-125	16	20	0.0750 J	0.0520 J	36* (1) 20
Chromium	101	182*	75-125	25*	20	18.7	21.9	16 20
Cobalt	120	146*	75-125	20	20	5.19	5.67	9 20
Copper	114	159*	75-125	23*	20	6.58	7.09	7 20
Lead	112	187*	75-125	23*	20	5.71	6.61	15 20
Nickel	112	161*	75-125	22*	20	9.89	14.0	35* 20
Silver	119	138*	75-125	16	20	0.0292 J	0.0487 J	50* (1) 20
Thallium	113	151*	75-125	20	20	0.284	0.279	2 (1) 20
Vanadium	84	229*	75-125	28*	20	36.2	41.3	13 20
Zinc	62 (2)	187 (2)	75-125	20	20	50.2	50.8	1 20
Batch number: 112931026004B	Sample number(s): 6441963-6441967 UNSPK: 6441965 BKG: 6441965							
Selenium	113	135*	75-125	18	20	0.134 J	0.159 J	17 (1) 20
Batch number: 112931026004C	Sample number(s): 6441963-6441967 UNSPK: 6441965 BKG: 6441965							
Molybdenum	112	139*	75-125	23*	20	0.452	0.543	18 (1) 20
Batch number: 112931026004D	Sample number(s): 6441963-6441967 UNSPK: 6441965 BKG: 6441965							
Barium	103 (2)	326 (2)	75-125	24*	20	71.9	80.3	11 20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 112935708007	Sample number(s): 6441963-6441967 UNSPK: 6441963 BKG: 6441963								
Aluminum	1463 (2)	1098 (2)	75-125	3	20	20,600	19,000	8	20
Boron	99	99	84-115	1	20	0.343 U	0.356 U	0 (1)	20
Calcium	153 (2)	171 (2)	75-125	2	20	2,760	2,740	0	20
Iron	437 (2)	-350 (2)	75-125	3	20	22,100	21,200	4	20
Lithium	98	98	82-114	1	20	20.5	19.0	7	20
Magnesium	153 (2)	108 (2)	75-125	2	20	4,790	4,460	7	20
Manganese	66 (2)	79 (2)	75-125	2	20	248	237	5	20
Phosphorus	109 (2)	107 (2)	75-125	0	20	433	459	6	20
Potassium	116	113	75-125	0	20	1,580	1,770	11	20
Sodium	97	97	75-125	1	20	90.1 J	88.3 J	2 (1)	20
Strontium	100	101	75-115	1	20	22.5	23.0	2	20
Tin	88	88	80-110	1	20	2.36 J	2.50 J	6 (1)	20
Titanium	211 (2)	231 (2)	75-125	2	20	963	945	2	20
Zirconium	97	97	81-110	1	20	6.75	6.86	2 (1)	20
Batch number: 112935711007	Sample number(s): 6441963-6441967 UNSPK: 6441967 BKG: 6441967								
Mercury	98	97	65-135	2	20	0.0439 J	0.0372 J	17 (1)	20
Batch number: 11293102201B	Sample number(s): 6441965-6441967 UNSPK: P437195 BKG: P437195								
16a Cyanide by 9012B	99		75-125			0.18 U	0.18 U	0 (1)	20
Batch number: 11293621202B	Sample number(s): 6441963-6441967 UNSPK: 6441963 BKG: 6441963								
7a Perchlorate EPA 314.0	103		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11298243201A	Sample number(s): 6441963-6441967 UNSPK: 6441963 BKG: 6441963								
3a Cr VI by EPA 7199	96		75-125			0.46 J	0.65 J	36* (1)	20
Batch number: 11300621201A	Sample number(s): 6441963-6441967 UNSPK: 6441963 BKG: 6441963								
11a Anions by 300.0 - Fluoride	53*		80-120			1.9	2.4	22* (1)	20
Batch number: 11300039402A	Sample number(s): 6441963-6441965 BKG: P439922								
17a pH by 9045C						8.26	8.27	0	3
Batch number: 11300039402B	Sample number(s): 6441966-6441967 BKG: P443494								
17a pH by 9045C						6.51	6.54	0	3
Batch number: 11298162401B	Sample number(s): 6441963-6441967, 6441970 BKG: P437195								
Moisture Content by 160.3						11.8	11.7	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11292SLE026

Nitrobenzene-d5

2-Fluorobiphenyl

Terphenyl-d14

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Surrogate Quality Control

6441963	97	82	88
6441964	99	83	85
6441965	107	87	94
6441966	94	83	90
6441967	95	81	89
Blank	94	83	90
LCS	101	84	88
MS	101	77	84
MSD	97	81	82
Limits:	40-130	45-130	45-135

Analysis Name: 21b. NDMA in Water

Batch number: 11292WAA026

N-Nitrosodimethylamine-
d6

6441968	127
6441969	105
6441972	104
Blank	117
LCS	120
LCSD	114
Limits:	50-150

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11293SLB026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6441963	82	89	79	87	88	80
6441964	83	90	75	85	85	79
6441965	84	91	76	88	88	80
6441966	82	90	74	84	86	80
6441967	80	89	75	87	89	80
Blank	83	89	80	86	88	82
LCS	86	91	82	86	88	79
MS	84	91	82	88	90	82
MSD	85	92	82	90	93	82
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 21a NDMA by 1625C

Batch number: 11293SLE026

N-Nitrosodimethylamine-
d6

6441970	112
Blank	110
LCS	104
LCSD	110
Limits:	50-150

Analysis Name: 4b Select SVOC EPA 8270SIM

Batch number: 11297WAE026

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Surrogate Quality Control

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6441972	105	88	95
Blank	102	88	93
LCS	104	89	93
LCSD	105	89	92
Limits:	40-130	45-130	45-135

Analysis Name: 5b Semivolatiles by EPA 8270C
Batch number: 11297WAI026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6441972	60	38	90	82	82	104
Blank	61	41	90	85	88	102
LCS	69	48	89	86	87	97
LCSD	71	51	91	91	89	99
Limits:	20-130	20-120	30-130	40-130	45-130	45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11293A16A
Trifluorotoluene-F

6441965	86
6441966	87
6441967	87
Blank	92
LCS	93
MS	90
MSD	76
Limits:	61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11294B20A
Trifluorotoluene-F

6441972	87
Blank	86
LCS	117
LCSD	113
Limits:	63-135

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11297B20A
Trifluorotoluene-F

6441971	86
Blank	87
LCS	117
LCSD	113
Limits:	63-135

Analysis Name: 8a PCBs/PCTs by 8082

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Surrogate Quality Control

Batch number: 112920031A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6441963	90	95
6441964	87	95
6441965	93	90
6441966	88	90
6441967	95	84
Blank	86	94
LCS	94	102
LCSD	94	106
MS	90	97
MSD	86	91

Limits: 53-139 45-120

Analysis Name: 20b Formaldehyde 8315A

Batch number: 112930018A

	Butyraldehyde
6441972	91
Blank	86
LCS	94
LCSD	95

Limits: 45-145

Analysis Name: 15b Energetics by 8330A

Batch number: 112930023A

	2-Nitro-m-xylene
6441972	92
Blank	91
LCS	91
LCSD	92

Limits: 50-134

Analysis Name: 8b PCBs/PCTs by 8082

Batch number: 112980001A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6441972	105	97
Blank	101	104
LCS	101	84
LCSD	99	79

Limits: 30-150 30-150

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel

Batch number: 112920027A

	Chlorobenzene	Orthoterphenyl
6441965	76	87
6441966	68	79
6441967	73	83
Blank	82	88

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Surrogate Quality Control

LCS	88	92
MS	77	86
MSD	80	90

Limits: 37-125 47-145

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112920028A
n-Triacontane-d62

6441965	76
6441966	71
6441967	75
Blank	80
LCS	79
MS	79
MSD	79

Limits: 19-152

Analysis Name: 18a Alcohols by 8015B
Batch number: 112920034A
Acetone

6441965	71
6441966	74
6441967	76
Blank	86
LCS	89
MS	80
MSD	78

Limits: 42-138

Analysis Name: 22b Terphenyls by 8015B
Batch number: 112930011A
n-Triacontane-d62

6441972	75
Blank	76
LCS	78
LCSD	77

Limits: 17-138

Analysis Name: 19a Glycols by 8015B
Batch number: 112930029A
Tetramethylene glycol

6441965	93
6441966	93
6441967	90
Blank	98
LCS	98
MS	92
MSD	90

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:29 AM

Group Number: 1271993

Surrogate Quality Control

Limits: 29-137

Analysis Name: 18b Alcohols by 8015B
Batch number: 112930031A
Acetone

6441972	98
Blank	101
LCS	104
MS	108
MSD	103

Limits: 54-147

Analysis Name: 9b TPH by EPA 8015B Oil/Diesel
Batch number: 112940018A
Chlorobenzene Orthoterphenyl

6441972	86	88
Blank	106	
LCS	130	101
LCSD	94	98

Limits: 28-152 52-131

Analysis Name: 19b Glycols by 8015B
Batch number: 112970039A
Tetramethylene glycol

6441972	112
Blank	104
LCS	110
MS	110
MSD	114

Limits: 29-157

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

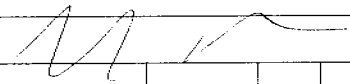
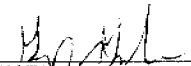
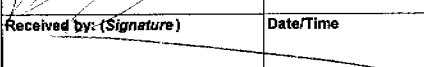
13013 1271993 6441963-72

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetra in under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8270B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**pH-NDMA EPA 1625C	**Enkegetics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	
		SL-013-SA5DS-SB-4.0-5.0	10.18.11	0910	SOIL	NONE	2- 16 oz Jars	X	X	X	X	X	X	X	X												
		SL-015-SA5DS-SB-3.5-4.5	10.18.11	1020	SOIL	NONE	2- 16 oz Jars	X	X	X	X	X	X	X	X												
		SL-020-SA7-SB-4.5	10.18.11	1220	SOIL	NONE	2-Encores									X											
		SL-020-SA7-SB-4.0-5.0	10.18.11	1223	SOIL	NONE	3- 16 oz Jars	X	X	X	X	X	X	X	X		X					X	X	X	X		*Pls use jar for SVOCs & PCBs
		SL-020-SA7-SB-9.5	10.18.11	1433	SOIL	NONE	2-Encores				X	X				X											
		SL-020-SA7-SB-9.0-10.0	10.18.11	1444	SOIL	NONE	1-SS Sleeve				X	X															
		SL-020-SA7-SB-9.0-10.0	10.18.11	1444	SOIL	NONE	2- 16 oz Jars	X	X		X	X	X	X			X					X	X	X	X		
		SL-140-SA7-SB-3.5	10.18.11	0955	SOIL	NONE	2-Encores									X											
		SL-140-SA7-SB-3.0-4.0	10.18.11	0950	SOIL	NONE	1-SS Sleeve			X	X																
		SL-140-SA7-SB-3.0-4.0	10.18.11	0950	SOIL	NONE	2- 16 oz Jars	X	X		X	X	X	X			X					X	X	X	X		
		EB-SA7-SB-101811	10.18.11	1400	WATER	NONE	1-1 L Amber												X								HGL ASTM II WATER-HA crew
		TB-101811	10.18.11	0800	WATER	NONE	1-1 L Amber												X								
		TB-101811	10.18.11	0800	SOIL	NONE	1-4 oz Jar												X								
		TB-101811	10.18.11	0800	WATER	NONE	2-40 mL Vials								X												
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:	
		10/18/2011 / 1630				10/19/11 0910																				Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No.(s)		8767 9858 6780, 6791, 5165																					

13013 1271993 6441963-72

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 180.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 8010/8270B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCPs EPA 8062	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex. Chrom. EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8016B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downal EPA 8270		
Samplers Signatures: 						SAMPLE NUMBER						DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
EB-SA5DS-SB-101811								X	X	X						X			X	X				X			
EB-SA5DS-SB-101811							X				X	X	X														
EB-SA5DS-SB-101811						X																					
EB-SA5DS-SB-101811																			X								
EB-SA5DS-SB-101811																	X										
EB-SA5DS-SB-101811														X									X				
EB-SA5DS-SB-101811																X					X						
Relinquished by: (Signature) 						Date/Time		Received for Laboratory by: (Signature) 										Laboratory:									
						10/18/2011 / 1630		10/19/11 Onio										Lancaster Laboratories, Inc.									
Received by: (Signature) 						Date/Time		Airbill No.(s)																			
								8767 9858 6780, 6791, 5165																			

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 31, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/19/2011

Group Number: 1271995

SDG: DX149

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-013-SA5DS-SB-4.0-5.0 Soil
SL-015-SA5DS-SB-3.5-4.5 Soil
SL-020-SA7-SB-4.0-5.0 Soil
SL-020-SA7-SB-9.0-10.0 Soil
SL-140-SA7-SB-3.0-4.0 Soil
EB-SA5DS-SB-101811 WaterLancaster Labs (LLI) #6441984
6441985
6441986
6441987
6441988
6441989

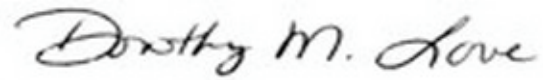
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Dorothy M. Love
Group Leader



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441984
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/19/2011 09:10

Suite 210

Reported: 10/31/2011 12:03

Chantilly VA 20151

SD013 SDG#: DX149-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	11.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441984
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 10/31/2011 12:03

Suite 210

Chantilly VA 20151

SD013 SDG#: DX149-15

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	0.0484 U	0.0484	1.10	1
11031	12378-PeCDD	40321-76-4	0.0766 JBQ	0.0315	5.48	1
11031	123478-HxCDD	39227-28-6	0.0251 JBQ	0.0250	5.48	1
11031	123678-HxCDD	57653-85-7	0.0758 J	0.0267	5.48	1
11031	123789-HxCDD	19408-74-3	0.113 JB	0.0254	5.48	1
11031	1234678-HpCDD	35822-46-9	0.263 JBQ	0.0256	5.48	1
11031	OCDD	3268-87-9	0.429 JB	0.0279	11.0	1
11031	2378-TCDF	51207-31-9	0.0307 JQ	0.0263	1.10	1
11031	12378-PeCDF	57117-41-6	0.0766 JBQ	0.0172	5.48	1
11031	23478-PeCDF	57117-31-4	0.0965 JBQ	0.0161	5.48	1
11031	123478-HxCDF	70648-26-9	0.0358 JBQ	0.0157	5.48	1
11031	123678-HxCDF	57117-44-9	0.0671 JB	0.0146	5.48	1
11031	123789-HxCDF	72918-21-9	0.0840 JBQ	0.0165	5.48	1
11031	234678-HxCDF	60851-34-5	0.0424 JB	0.0139	5.48	1
11031	1234678-HpCDF	67562-39-4	0.108 JB	0.0117	5.48	1
11031	1234789-HpCDF	55673-89-7	0.0406 JBQ	0.0169	5.48	1
11031	OCDF	39001-02-0	0.141 JBQ	0.0332	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Estimated Detection Limit and Minimum Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration
- F* Interference is present

Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441984
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 10/31/2011 12:03

Suite 210

Chantilly VA 20151

SD013 SDG#: DX149-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-013-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA5DS-SB-4.0-5.0

LLI Sample # SW 6441984
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:10

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 10/31/2011 12:03

Suite 210

Chantilly VA 20151

SD013 SDG#: DX149-15

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 09:52	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441985
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

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Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD015 SDG#: DX149-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	9.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441985
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

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Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD015 SDG#: DX149-16

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	0.0480 JQ	0.0419	1.09	1
11031	12378-PeCDD	40321-76-4	0.176 JBQ	0.0423	5.44	1
11031	123478-HxCDD	39227-28-6	0.0750 JBQ	0.0280	5.44	1
11031	123678-HxCDD	57653-85-7	0.199 J	0.0290	5.44	1
11031	123789-HxCDD	19408-74-3	0.264 JBQ	0.0292	5.44	1
11031	1234678-HpCDD	35822-46-9	0.414 JBQ	0.0291	5.44	1
11031	OCDD	3268-87-9	2.44 JB	0.0239	10.9	1
11031	2378-TCDF	51207-31-9	0.0938 JQ	0.0325	1.09	1
11031	12378-PeCDF	57117-41-6	0.193 JBQ	0.0199	5.44	1
11031	23478-PeCDF	57117-31-4	0.182 JBQ	0.0192	5.44	1
11031	123478-HxCDF	70648-26-9	0.132 JBQ	0.0221	5.44	1
11031	123678-HxCDF	57117-44-9	0.117 JBQ	0.0199	5.44	1
11031	123789-HxCDF	72918-21-9	0.182 JBQ	0.0225	5.44	1
11031	234678-HxCDF	60851-34-5	0.0756 JBQ	0.0180	5.44	1
11031	1234678-HpCDF	67562-39-4	0.115 JB	0.0137	5.44	1
11031	1234789-HpCDF	55673-89-7	0.0561 JB	0.0195	5.44	1
11031	OCDF	39001-02-0	0.233 JB	0.0376	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	89	25 - 181
13C12-123478-HxCDD	101	32 - 141
13C12-123678-HxCDD	104	28 - 130
13C12-123789-HxCDD	99	28 - 130
13C12-1234678-HpCDD	106	23 - 140
13C12-OCDD	118	17 - 157
13C12-2378-TCDF	85	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	96	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	110	28 - 143
13C12-1234789-HpCDF	92	26 - 138
13C12-OCDF	100	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441985
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

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SD015 SDG#: DX149-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-015-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA5DS-SB-3.5-4.5

LLI Sample # SW 6441985
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 10:20

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD015 SDG#: DX149-16

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 10:48	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441986
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

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Submitted: 10/19/2011 09:10

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SD204 SDG#: DX149-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	7.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441986
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD204 SDG#: DX149-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.141 JQ	0.0460	1.03	1
11031	12378-PeCDD	40321-76-4	0.250 JBQ	0.0416	5.15	1
11031	123478-HxCDD	39227-28-6	0.0621 JB	0.0356	5.15	1
11031	123678-HxCDD	57653-85-7	0.313 JQ	0.0347	5.15	1
11031	123789-HxCDD	19408-74-3	0.199 JB	0.0343	5.15	1
11031	1234678-HpCDD	35822-46-9	3.76 JB	0.0446	5.15	1
11031	OCDD	3268-87-9	41.7 B	0.0458	10.3	1
11031	2378-TCDF	51207-31-9	0.0709 J	0.0483	1.03	1
11031	12378-PeCDF	57117-41-6	0.375 JBQ	0.0292	5.15	1
11031	23478-PeCDF	57117-31-4	0.405 JBQ	0.0290	5.15	1
11031	123478-HxCDF	70648-26-9	0.456 JB	0.0345	5.15	1
11031	123678-HxCDF	57117-44-9	0.130 JB	0.0304	5.15	1
11031	123789-HxCDF	72918-21-9	0.0967 JBQ	0.0334	5.15	1
11031	234678-HxCDF	60851-34-5	0.151 JB	0.0298	5.15	1
11031	1234678-HpCDF	67562-39-4	0.954 JB	0.0232	5.15	1
11031	1234789-HpCDF	55673-89-7	0.112 JBQ	0.0358	5.15	1
11031	OCDF	39001-02-0	1.73 JB	0.0436	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	104	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	87	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441986
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD204 SDG#: DX149-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-020-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-4.0-5.0

LLI Sample # SW 6441986
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 12:23

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD204 SDG#: DX149-17

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 14:48	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441987
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD209 SDG#: DX149-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	14.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441987
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD209 SDG#: DX149-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0416 U	0.0416	1.14	1
11031	12378-PeCDD	40321-76-4	0.117 JBQ	0.0400	5.71	1
11031	123478-HxCDD	39227-28-6	0.0248 U	0.0248	5.71	1
11031	123678-HxCDD	57653-85-7	0.0385 JQ	0.0264	5.71	1
11031	123789-HxCDD	19408-74-3	0.0668 JB	0.0262	5.71	1
11031	1234678-HpCDD	35822-46-9	0.492 JB	0.0289	5.71	1
11031	OCDD	3268-87-9	2.78 JB	0.0346	11.4	1
11031	2378-TCDF	51207-31-9	0.0367 JQ	0.0328	1.14	1
11031	12378-PeCDF	57117-41-6	0.163 JB	0.0203	5.71	1
11031	23478-PeCDF	57117-31-4	0.145 JB	0.0192	5.71	1
11031	123478-HxCDF	70648-26-9	0.0784 JB	0.0196	5.71	1
11031	123678-HxCDF	57117-44-9	0.0799 JBQ	0.0179	5.71	1
11031	123789-HxCDF	72918-21-9	0.0791 JBQ	0.0195	5.71	1
11031	234678-HxCDF	60851-34-5	0.0421 JBQ	0.0162	5.71	1
11031	1234678-HpCDF	67562-39-4	0.124 JB	0.0144	5.71	1
11031	1234789-HpCDF	55673-89-7	0.0384 JB	0.0204	5.71	1
11031	OCDF	39001-02-0	0.188 JB	0.0387	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	84	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441987
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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SD209 SDG#: DX149-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-020-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA7-SB-9.0-10.0

LLI Sample # SW 6441987
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:44

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 10/31/2011 12:03

Suite 210

Chantilly VA 20151

SD209 SDG#: DX149-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 15:44	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441988
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

14420 Albemarle Point Place

Reported: 10/31/2011 12:03

Suite 210

Chantilly VA 20151

SD140 SDG#: DX149-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	9.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441988
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

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Reported: 10/31/2011 12:03

Suite 210

Chantilly VA 20151

SD140 SDG#: DX149-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0506 U	0.0506	1.08	1
11031	12378-PeCDD	40321-76-4	0.0517 JBQ	0.0343	5.38	1
11031	123478-HxCDD	39227-28-6	0.0354 JBQ	0.0225	5.38	1
11031	123678-HxCDD	57653-85-7	0.0432 JQ	0.0229	5.38	1
11031	123789-HxCDD	19408-74-3	0.0726 JBQ	0.0223	5.38	1
11031	1234678-HpCDD	35822-46-9	0.381 JBQ	0.0273	5.38	1
11031	OCDD	3268-87-9	1.58 JB	0.0281	10.8	1
11031	2378-TCDF	51207-31-9	0.0325 U	0.0325	1.08	1
11031	12378-PeCDF	57117-41-6	0.0563 JBQ	0.0177	5.38	1
11031	23478-PeCDF	57117-31-4	0.0830 JBQ	0.0178	5.38	1
11031	123478-HxCDF	70648-26-9	0.0184 U	0.0184	5.38	1
11031	123678-HxCDF	57117-44-9	0.0285 JBQ	0.0158	5.38	1
11031	123789-HxCDF	72918-21-9	0.0377 JBQ	0.0170	5.38	1
11031	234678-HxCDF	60851-34-5	0.0408 JBQ	0.0146	5.38	1
11031	1234678-HpCDF	67562-39-4	0.0982 JB	0.0129	5.38	1
11031	1234789-HpCDF	55673-89-7	0.0737 JB	0.0200	5.38	1
11031	OCDF	39001-02-0	0.131 JB	0.0389	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	84	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441988
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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SD140 SDG#: DX149-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-140-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-140-SA7-SB-3.0-4.0

LLI Sample # SW 6441988
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 09:50

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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SD140 SDG#: DX149-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11294002	10/25/2011 16:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11294002	10/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11298162401B	10/25/2011 18:57	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441989
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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DEB18 SDG#: DX149-20EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.275 U	0.275	2.04	1
10915	12378-PeCDD	40321-76-4	0.332 JQ	0.230	10.2	1
10915	123478-HxCDD	39227-28-6	0.219 U	0.219	10.2	1
10915	123678-HxCDD	57653-85-7	0.269 JBQ	0.225	10.2	1
10915	123789-HxCDD	19408-74-3	0.264 JB	0.221	10.2	1
10915	1234678-HpCDD	35822-46-9	2.72 JB	0.215	10.2	1
10915	OCDD	3268-87-9	5.70 JB	0.291	20.4	1
10915	2378-TCDF	51207-31-9	0.173 U	0.173	2.04	1
10915	12378-PeCDF	57117-41-6	0.161 JBQ	0.139	10.2	1
10915	23478-PeCDF	57117-31-4	0.124 U	0.124	10.2	1
10915	123478-HxCDF	70648-26-9	0.500 JBQ	0.127	10.2	1
10915	123678-HxCDF	57117-44-9	0.297 JBQ	0.126	10.2	1
10915	123789-HxCDF	72918-21-9	0.364 JBQ	0.130	10.2	1
10915	234678-HxCDF	60851-34-5	0.370 JBQ	0.119	10.2	1
10915	1234678-HpCDF	67562-39-4	2.10 JBQ	0.118	10.2	1
10915	1234789-HpCDF	55673-89-7	0.403 JBQ	0.133	10.2	1
10915	OCDF	39001-02-0	1.39 JB	0.363	20.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	87	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

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Sample Description: EB-SA5DS-SB-101811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB-101811

LLI Sample # WW 6441989
LLI Group # 1271995
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/18/2011 14:00

CDM Federal Programs Corp.

Submitted: 10/19/2011 09:10

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Reported: 10/31/2011 12:03

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DEB18 SDG#: DX149-20EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
S	Saturation of detection signal					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	11297002	10/26/2011 05:10	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	11297002	10/24/2011 09:45	Ginelle L Haines	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/31/11 at 12:03 PM

Group Number: 1271995

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11298162401B	Sample number(s): 6441984-6441988				100		80-120		
Moisture Content by 160.3									

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11294002	Sample number(s): 6441984-6441988								
2378-TCDD	0.0609 U	0.0609	1.00	ng/kg	107		67-158		
12378-PeCDD	0.0460 J	0.0441	5.00	ng/kg	105		70-142		
123478-HxCDD	0.0460 J	0.0278	5.00	ng/kg	100		70-164		
123678-HxCDD	0.0276 U	0.0276	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0516 J	0.0279	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.267 J	0.0317	5.00	ng/kg	100		70-140		
OCDD	0.461 J	0.0245	10.0	ng/kg	95		78-144		
2378-TCDF	0.0429 U	0.0429	1.00	ng/kg	97		75-158		
12378-PeCDF	0.0382 J	0.0220	5.00	ng/kg	102		80-134		
23478-PeCDF	0.0374 J	0.0203	5.00	ng/kg	96		68-160		
123478-HxCDF	0.0843 J	0.0241	5.00	ng/kg	97		72-134		
123678-HxCDF	0.0224 J	0.0214	5.00	ng/kg	98		84-130		
123789-HxCDF	0.0575 J	0.0180	5.00	ng/kg	98		78-130		
234678-HxCDF	0.0541 J	0.0162	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.154 J	0.0152	5.00	ng/kg	92		82-122		
1234789-HpCDF	0.0824 J	0.0190	5.00	ng/kg	96		78-138		
OCDF	0.172 J	0.0394	10.0	ng/kg	97		63-170		

Batch number: 11297002	Sample number(s): 6441989								
2378-TCDD	0.534 U	0.534	2.00	pg/l	108		67-158		
12378-PeCDD	0.463 U	0.463	10.0	pg/l	109		70-142		
123478-HxCDD	0.338 U	0.338	10.0	pg/l	102		70-164		
123678-HxCDD	0.372 J	0.333	10.0	pg/l	99		76-134		
123789-HxCDD	0.989 J	0.344	10.0	pg/l	107		64-162		
1234678-HpCDD	3.78 J	0.374	10.0	pg/l	105		70-140		
OCDD	6.96 J	0.424	20.0	pg/l	104		78-144		
2378-TCDF	0.339 J	0.324	2.00	pg/l	97		75-158		
12378-PeCDF	0.262 J	0.229	10.0	pg/l	102		80-134		
23478-PeCDF	0.327 J	0.200	10.0	pg/l	99		68-160		
123478-HxCDF	0.588 J	0.209	10.0	pg/l	103		72-134		
123678-HxCDF	0.410 J	0.208	10.0	pg/l	105		84-130		
123789-HxCDF	0.976 J	0.229	10.0	pg/l	102		78-130		
234678-HxCDF	0.342 J	0.198	10.0	pg/l	99		70-156		
1234678-HpCDF	1.54 J	0.203	10.0	pg/l	98		82-122		
1234789-HpCDF	0.445 J	0.233	10.0	pg/l	104		78-138		
OCDF	2.32 J	0.508	20.0	pg/l	103		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/31/11 at 12:03 PM

Group Number: 1271995

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: 11298162401B Moisture Content by 160.3	Sample number(s): 6441984-6441988 BKG: P437195 11.8 11.7 1 20								
Batch number: 11294002	Sample number(s): 6441984-6441988 UNSPK: P435711								
2378-TCDD	109	105	67-158	3	25				
12378-PeCDD	105	104	70-142	0	25				
123478-HxCDD	98	98	70-164	1	25				
123678-HxCDD	93	95	76-134	3	25				
123789-HxCDD	100	102	64-162	3	25				
1234678-HpCDD	98	99	70-140	3	25				
OCDD	96	95	78-144	1	25				
2378-TCDF	98	97	75-158	0	25				
12378-PeCDF	101	102	80-134	2	25				
23478-PeCDF	96	93	68-160	2	25				
123478-HxCDF	100	97	72-134	2	25				
123678-HxCDF	98	98	84-130	0	25				
123789-HxCDF	100	98	78-130	0	25				
234678-HxCDF	95	95	70-156	2	25				
1234678-HpCDF	90	90	82-122	1	25				
1234789-HpCDF	96	96	78-138	1	25				
OCDF	97	95	63-170	1	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11294002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6441984	72	74	70	76	79	78
6441985	85	87	83	88	96	90
6441986	77	78	70	78	76	82
6441987	74	77	69	76	84	82
6441988	74	77	65	77	81	82
Blank	86	88	61	70	88	96
MS	76	80	51	59	84	85
MSD	72	79	50	54	81	84
OPR	74	77	60	69	78	83
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6441984	92	76	82	76	87	88
6441985	110	92	100	89	101	104

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/31/11 at 12:03 PM

Group Number: 1271995

Surrogate Quality Control

6441986	96	78	87	82	83	85
6441987	90	80	84	79	89	89
6441988	95	78	84	80	89	88
Blank	92	93	100	92	92	97
MS	77	83	88	81	90	89
MSD	72	83	92	79	83	84
OPR	88	82	87	81	86	87

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	

6441984	84	89	95	72	78	
6441985	99	106	118	85	92	
6441986	84	92	104	77	84	
6441987	86	89	95	76	82	
6441988	86	93	101	73	84	
Blank	96	108	118	82	92	
MS	89	95	102	78	84	
MSD	85	92	103	72	79	
OPR	86	95	103	73	81	

Limits:	28-130	23-140	17-157	24-169	24-185	

Analysis Name: 10b Dioxin/Furan by EPA 1613B
Batch number: 11297002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6441989	82	80	74	76	79	86
Blank	54	55	50	50	53	54
OPR	65	64	62	62	65	73

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD

6441989	73	76	74	77	78	83
Blank	51	52	49	52	52	57
OPR	65	63	62	62	66	68

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	

6441989	79	79	76	87	81	
Blank	53	54	51	57	54	
OPR	67	68	66	67	66	

Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

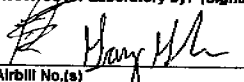
** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

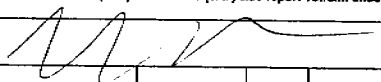
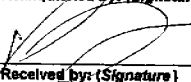
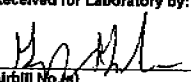
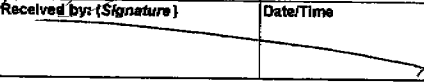
13013 1271995 6441984-89

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels *Secondary Analyses as indicated on sample labels *Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrelin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8202/8270/8271A	*Fluoride EPA 300.0	*SVOCS EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Pesticides EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9040/9040B	*Perchlorate Confirmation by EPA 9850 (10%)	*TPH-GRO EPA 8015B \$	*TPH-LEPH EPA 8015B Mod.	*Nitrate EPA 300.0	*Formaldehyde EPA 8315A	*1-NDMA EPA 1625C	*Energetics EPA 6330A	*Cyanide EPA 9012B	*Triphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B		*Downhole EPA 8270
								SL-013-SA5DS-SB-4.0-5.0	10.18.11	0910	SOIL	NONE	2- 16 oz Jars	X	X	X	X	X	X	X	X							
		SL-015-SA5DS-SB-3.5-4.5	10.18.11	1020	SOIL	NONE	2- 16 oz Jars	X	X	X	X	X	X	X	X													
		SL-020-SA7-SB-4.5	10.18.11	1220	SOIL	NONE	2-Encores																					
		SL-020-SA7-SB-4.0-5.0	10.18.11	1223	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X		X											
		SL-020-SA7-SB-9.5	10.18.11	1433	SOIL	NONE	2-Encores																X	X	X	X	*Please use jar for SVOCs & PCBs	
		SL-020-SA7-SB-9.0-10.0	10.18.11	1444	SOIL	NONE	1-SS Sleeve			X	X																	
		SL-020-SA7-SB-9.0-10.0	10.18.11	1444	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X						X	X	X	X		
		SL-140-SA7-SB-3.5	10.18.11	0955	SOIL	NONE	2-Encores			X	X					X												
		SL-140-SA7-SB-3.0-4.0	10.18.11	0950	SOIL	NONE	1-SS Sleeve																					
		SL-140-SA7-SB-3.0-4.0	10.18.11	0950	SOIL	NONE	2- 16 oz Jars	X	X			X	X	X	X		X					X	X	X	X			
		EB-SA7-SB-101811	10.18.11	1400	WATER	NONE	1-1 L Amber													X							HGL ASTM II WATER-HA crew	
		TB-101811	10.18.11	0800	WATER	NONE	1-1 L Amber													X								
		TB-101811	10.18.11	0800	SOIL	NONE	1-4 oz Jar													X								
		TB-101811	10.18.11	0800	WATER	NONE	2-40 mL Vials									X												
Relinquished by: (Signature)		Date/Time	Received for Laboratory by: (Signature)															Laboratory:										
		10/18/2011 / 1630	 10/19/11 0910															Lancaster Laboratories, Inc.										
Received by: (Signature)		Date/Time	Airbill No.(s)																									
			8767 9858 6780, 6791, 5165																									

13013 1271995 6441984-89

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analytes as indicated on sample labels **Secondary Analytes as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetra in under EPA Method 8270C.																											
Samplers Signature: 																											
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8270/8461/471/A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/TCs EPA 8082	*Dioxin/Furan EPA 1631B	*Pesticides EPA 814.0	*Hex Chrom EPA 7189	*pH EPA 8045C/8040B	Pesticide Confirmation by EPA 8080 (10%)	TPH-GRO EPA 8015B \$	TPH-EFH EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*H-NDMA EPA 1625C	*Energolux EPA 8330A	*Cyanide EPA 8012B	*Terphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B	*Dioxins EPA 8270		
EB-SA5DS-SB-101811	10.18.11	1400	WATER	NONE	10-1 liter ambers			X	X	X						X											
EB-SA5DS-SB-101811	10.18.11	1400	WATER	NONE	1-500 mL poly		X				X	X	X					X	X		X				X		
EB-SA5DS-SB-101811	10.18.11	1400	WATER	HNO3	1-500 mL poly	X																					
EB-SA5DS-SB-101811	10.18.11	1400	WATER	NaOH	1-500 mL poly															X							
EB-SA5DS-SB-101811	10.18.11	1400	WATER	NONE	1-250 mL glass													X									
EB-SA5DS-SB-101811	10.18.11	1400	WATER	HCL	11-40 mL vials									X									X				
EB-SA5DS-SB-101811	10.18.11	1400	WATER	NONE	4-40 mL vials												X					X					
Relinquished by: (Signature) 		Date/Time 10/18/2011 / 1630		Received for Laboratory by: (Signature) 														Laboratory: Lancaster Laboratories, Inc.									
Received by: (Signature) 		Date/Time		Airbill No. (s) 8767 9858 6780, 6791, 5165																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 18, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/20/2011

Group Number: 1272257

SDG: DE272

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-016-SA5DS-SB-4.0-5.0 Soil
SL-143-SA7-SB-5.0-6.0 Soil
SL-143-SA7-SB-9.0-10.0 Soil
SL-142-SA7-SB-2.0-3.0 Soil
SL-142-SA7-SB-7.0-8.0 Soil
EB-SA7-SB-101911 Water
TB-101911 Water
TB-101911 Sand
TB-101911 Water
EB-SA7-SB-101911 WaterLancaster Labs (LLI) #6443490
6443491
6443492
6443493
6443494
6443495
6443496
6443497
6443498
6443499

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

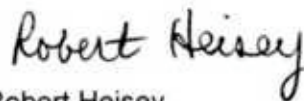
COPY TO

1 COPY TO Data Package Group

Attn: Todd Burgesser

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443490
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7201 SDG#: DE272-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443490
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7201 SDG#: DE272-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	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	ug/kg	
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.71	U 0.71	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.71	U 0.71	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.71	U 0.71	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.71	U 0.71	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.71	U 0.71	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.4	U 6.4	19		1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.71	U 0.71	1.8		1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19		1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4	U 6.4	19		1
10138	Fluoranthene	206-44-0	0.71	U 0.71	1.8		1
10138	Fluorene	86-73-7	0.71	U 0.71	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71	U 0.71	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.71	U 0.71	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.71	U 0.71	1.8		1
10138	Naphthalene	91-20-3	0.71	U 0.71	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.71	U 0.71	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19		1
10138	Phenanthrene	85-01-8	0.71	U 0.71	1.8		1
10138	Pyrene	129-00-0	0.71	U 0.71	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.8		1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.8		1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.8		1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.8		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.8		1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.8		1
10225	PCB-1260	11096-82-5	0.42	U 0.42	1.8		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.8		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,500	6.52	21.5		1
07914	Boron	7440-42-8	2.00	J 0.388	5.39		1
01650	Calcium	7440-70-2	3,090	2.69	21.5		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 3 of 5

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443490
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7201 SDG#: DE272-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	27,000	2.81	21.5		1
01656	Lithium	7439-93-2	19.9	0.67	2.2		1
01657	Magnesium	7439-95-4	5,280	0.474	10.8		1
06958	Manganese	7439-96-5	303	0.0388	0.539		1
10145	Phosphorus	7723-14-0	432	0.377	10.8		1
01662	Potassium	7440-09-7	1,690	12.2	53.9		1
01667	Sodium	7440-23-5	110	6.41	108		1
07968	Strontium	7440-24-6	27.5	0.0269	0.539		1
06969	Tin	7440-31-5	2.95 J	0.345	10.8		1
06970	Titanium	7440-32-6	1,480	0.0765	1.08		1
10146	Zirconium	7440-67-7	13.0	0.496	5.39		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.243	0.0797	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	5.58	0.0862	0.431		2
06126	Barium	7440-39-3	65.0	0.114	0.431		2
06127	Beryllium	7440-41-7	0.712	0.0172	0.108		2
06128	Cadmium	7440-43-9	0.119	0.0474	0.108		2
06131	Chromium	7440-47-3	36.8	0.129	0.431		2
06132	Cobalt	7440-48-4	6.94	0.0215	0.108		2
06133	Copper	7440-50-8	6.80	0.0862	0.431		2
06135	Lead	7439-92-1	5.59	0.0110	0.215		2
06138	Molybdenum	7439-98-7	0.538	0.0539	0.108		2
06139	Nickel	7440-02-0	12.6	0.108	0.431		2
06141	Selenium	7782-49-2	0.154 J	0.0625	0.431		2
06142	Silver	7440-22-4	0.0268 J	0.0153	0.108		2
06145	Thallium	7440-28-0	0.222	0.0323	0.108		2
06148	Vanadium	7440-62-2	66.2	0.0237	0.108		2
06149	Zinc	7440-66-6	50.7	0.603	3.23		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.87	1.1		1
	EPA 314.0		ug/kg	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	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.56 J	0.22	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443490
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7201 SDG#: DE272-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.00	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.1	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 20:00	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 11:11	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112970027A	10/31/2011 22:38	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112970027A	10/25/2011 12:00	Olivia I Santiago	1
01643	Aluminum	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112975708004	10/25/2011 14:30	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026002D	10/26/2011 04:58	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443490
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7201 SDG#: DE272-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026002C	10/26/2011 04:58	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026002B	10/26/2011 04:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026002A	10/26/2011 04:58	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711002	10/25/2011 16:09	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708004	10/24/2011 21:53	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026002	10/24/2011 21:55	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711002	10/25/2011 01:40	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 11:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201A	11/03/2011 15:36	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 15:59	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201A	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402B	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401A	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7202 SDG#: DE272-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	ug/kg	
06192	Acetone	67-64-1	7.5 U	7.5	9.0		1.05
06192	Benzene	71-43-2	0.11 U	0.11	4.5		1.05
06192	Bromobenzene	108-86-1	0.15 U	0.15	4.5		1.05
06192	Bromochloromethane	74-97-5	0.37 U	0.37	4.5		1.05
06192	Bromodichloromethane	75-27-4	0.09 U	0.09	4.5		1.05
06192	Bromoform	75-25-2	0.45 U	0.45	4.5		1.05
06192	Bromomethane	74-83-9	0.28 U	0.28	4.5		1.05
06192	2-Butanone	78-93-3	1.4 U	1.4	9.0		1.05
06192	n-Butylbenzene	104-51-8	0.14 U	0.14	4.5		1.05
06192	sec-Butylbenzene	135-98-8	0.07 U	0.07	4.5		1.05
06192	tert-Butylbenzene	98-06-6	0.18 U	0.18	4.5		1.05
06192	Carbon Tetrachloride	56-23-5	0.16 U	0.16	4.5		1.05
06192	Chlorobenzene	108-90-7	0.12 U	0.12	4.5		1.05
06192	Chloroethane	75-00-3	0.15 U	0.15	4.5		1.05
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.34 U	0.34	4.5		1.05
06192	Chloroform	67-66-3	0.14 J	0.14	4.5		1.05
06192	Chloromethane	74-87-3	0.37 U	0.37	4.5		1.05
06192	2-Chlorotoluene	95-49-8	0.16 U	0.16	4.5		1.05
06192	4-Chlorotoluene	106-43-4	0.16 U	0.16	4.5		1.05
06192	Chlorotrifluoroethene	79-38-9	0.56 U	0.56	5.6		1.05
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.79 U	0.79	4.5		1.05
06192	Dibromochloromethane	124-48-1	0.22 U	0.22	4.5		1.05
06192	1,2-Dibromoethane	106-93-4	0.19 U	0.19	4.5		1.05
06192	Dibromomethane	74-95-3	0.27 U	0.27	4.5		1.05
06192	1,2-Dichlorobenzene	95-50-1	0.10 U	0.10	4.5		1.05
06192	1,3-Dichlorobenzene	541-73-1	0.14 U	0.14	4.5		1.05
06192	1,4-Dichlorobenzene	106-46-7	0.18 U	0.18	4.5		1.05
06192	Dichlorodifluoromethane	75-71-8	0.14 U	0.14	4.5		1.05
06192	1,1-Dichloroethane	75-34-3	0.11 U	0.11	4.5		1.05
06192	1,2-Dichloroethane	107-06-2	0.17 U	0.17	4.5		1.05
06192	1,1-Dichloroethene	75-35-4	0.44 U	0.44	4.5		1.05
06192	cis-1,2-Dichloroethene	156-59-2	0.21 U	0.21	4.5		1.05
06192	trans-1,2-Dichloroethene	156-60-5	0.14 U	0.14	4.5		1.05
06192	1,2-Dichloropropane	78-87-5	0.19 U	0.19	4.5		1.05
06192	1,3-Dichloropropane	142-28-9	0.09 U	0.09	4.5		1.05
06192	2,2-Dichloropropane	594-20-7	0.19 U	0.19	4.5		1.05
06192	1,1-Dichloropropene	563-58-6	0.15 U	0.15	4.5		1.05
06192	cis-1,3-Dichloropropene	10061-01-5	0.18 U	0.18	4.5		1.05
06192	trans-1,3-Dichloropropene	10061-02-6	0.19 U	0.19	4.5		1.05
06192	Ethylbenzene	100-41-4	0.07 U	0.07	4.5		1.05
06192	Freon 113	76-13-1	0.12 U	0.12	4.5		1.05
06192	Freon 133a	75-88-7	0.56 U	0.56	5.6		1.05
06192	Hexachlorobutadiene	87-68-3	0.16 U	0.16	4.5		1.05
06192	2-Hexanone	591-78-6	1.8 U	1.8	9.0		1.05
06192	Isopropylbenzene	98-82-8	0.07 U	0.07	4.5		1.05
06192	p-Isopropyltoluene	99-87-6	0.12 U	0.12	4.5		1.05
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.24 U	0.24	4.5		1.05
06192	4-Methyl-2-pentanone	108-10-1	0.44 U	0.44	9.0		1.05
06192	Methylene Chloride	75-09-2	0.78 J	0.27	4.5		1.05
06192	n-Propylbenzene	103-65-1	0.08 U	0.08	4.5		1.05

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7202 SDG#: DE272-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	ug/kg	
06192	Styrene	100-42-5	0.11 U	0.11	4.5		1.05
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.12 U	0.12	4.5		1.05
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.26 U	0.26	4.5		1.05
06192	Tetrachloroethene	127-18-4	0.22 U	0.22	4.5		1.05
06192	Toluene	108-88-3	0.21 J	0.09	4.5		1.05
06192	1,2,3-Trichlorobenzene	87-61-6	0.16 U	0.16	4.5		1.05
06192	1,2,4-Trichlorobenzene	120-82-1	0.20 U	0.20	4.5		1.05
06192	1,1,1-Trichloroethane	71-55-6	0.22 U	0.22	4.5		1.05
06192	1,1,2-Trichloroethane	79-00-5	0.30 U	0.30	4.5		1.05
06192	Trichloroethene	79-01-6	0.17 U	0.17	4.5		1.05
06192	Trichlorofluoromethane	75-69-4	0.33 U	0.33	4.5		1.05
06192	1,2,3-Trichloropropane	96-18-4	0.37 U	0.37	4.5		1.05
06192	1,2,4-Trimethylbenzene	95-63-6	0.45 U	0.45	4.5		1.05
06192	1,3,5-Trimethylbenzene	108-67-8	0.11 U	0.11	4.5		1.05
06192	Vinyl Chloride	75-01-4	0.22 U	0.22	4.5		1.05
06192	m+p-Xylene	179601-23-1	0.19 U	0.19	4.5		1.05
06192	o-Xylene	95-47-6	0.19 U	0.19	4.5		1.05
GC/MS	Volatiles	SW-846 8260B SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10326	1,4-Dioxane	123-91-1	6.5 U	6.5	20		30.64
GC/MS	Semivolatiles	EPA 1625C	ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	17.7 U	17.7	35.4		1
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	180	U 180	530		1
04688	Benzyl alcohol	100-51-6	180	U 180	530		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180		1
04688	4-Chloroaniline	106-47-8	70	U 70	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530		1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7202 SDG#: DE272-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	35	U 35	180		1
04688	4-Methylphenol	106-44-5	35	U 35	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	35	U 35	180		1
04688	4-Nitroaniline	100-01-6	70	U 70	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	530		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	530		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70	U 0.70	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.70	U 0.70	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.70	U 0.70	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	0.70	U 0.70	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.70	U 0.70	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.70	U 0.70	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.3	U 6.3	19		1
10138	Di-n-butylphthalate	84-74-2	6.3	U 6.3	19		1
10138	Chrysene	218-01-9	0.35	U 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.70	U 0.70	1.7		1
10138	Diethylphthalate	84-66-2	6.3	U 6.3	19		1
10138	Dimethylphthalate	131-11-3	6.3	U 6.3	19		1

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Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7202 SDG#: DE272-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM							
			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Bis (2-Ethylhexyl) phthalate	117-81-7	6.3 U	6.3	19		1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.7		1
10138	Fluorene	86-73-7	0.70 U	0.70	1.7		1
10138	Indeno (1,2,3-cd) pyrene	193-39-5	0.70 U	0.70	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.7		1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19		1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.7		1
10138	Pyrene	129-00-0	0.70 U	0.70	1.7		1
GC Volatiles TPH GRO SW-846 8015B mod							
			mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.3 J	0.2	1.2		27.11
Explosives SW-846 8330A							
			ug/kg	ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	64 U	64	130	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	43 U	43	130	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	85 U	85	260	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	85 U	85	260	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	43 U	43	130	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	43 U	43	130	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	43 U	43	130	1000000	1
10132	HMX	2691-41-0	110 U	110	320	1000000	1
10132	Nitrobenzene	98-95-3	43 U	43	130	1000000	1
10132	Nitroglycerin	55-63-0	850 U	850	2,600	1000000	1
10132	2-Nitrotoluene	88-72-2	85 U	85	130	1000000	1
10132	3-Nitrotoluene	99-08-1	110 U	110	130	1000000	1
10132	4-Nitrotoluene	99-99-0	85 U	85	130	1000000	1
10132	PETN	78-11-5	850 U	850	2,600	1000000	1
10132	RDX	121-82-4	53 U	53	130	1000000	1
10132	Tetryl	479-45-8	65 U	65	130	1000000	1

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Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

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14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7202 SDG#: DE272-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/kg	ug/kg	ug/kg	ug/kg	
10132	1,3,5-Trinitrobenzene	99-35-4	43 U	43	130	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	43 U	43	130	10000000	1
HPLC Organics		SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde	50-00-0	640 U	640	1,600		1
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5		1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8		1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8		1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8		1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8		1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	530		1
10501	Isopropanol	67-63-0	110 U	110	530		1
10501	Methanol	67-56-1	110 U	110	530		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11		1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11		1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.67 J	0.43	1.3		1
10199	EFH (C15-C20)	n.a.	1.0 J	0.43	1.3		1
10199	EFH (C21-C30)	n.a.	3.8	0.43	1.3		1
10199	EFH (C30 - C40)	n.a.	6.8	0.43	1.3		1
10199	EFH (C8-C11)	n.a.	0.43 U	0.43	1.3		1

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Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7202 SDG#: DE272-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	24,000	6.26	20.7		1
07914	Boron	7440-42-8	0.372 U	0.372	5.17		1
01650	Calcium	7440-70-2	2,750	2.58	20.7		1
01654	Iron	7439-89-6	23,200	2.70	20.7		1
01656	Lithium	7439-93-2	25.5	0.64	2.1		1
01657	Magnesium	7439-95-4	4,610	0.455	10.3		1
06958	Manganese	7439-96-5	285	0.0372	0.517		1
10145	Phosphorus	7723-14-0	192	0.362	10.3		1
01662	Potassium	7440-09-7	1,490	11.7	51.7		1
01667	Sodium	7440-23-5	95.7 J	6.15	103		1
07968	Strontium	7440-24-6	17.7	0.0258	0.517		1
06969	Tin	7440-31-5	2.77 J	0.331	10.3		1
06970	Titanium	7440-32-6	1,300	0.0734	1.03		1
10146	Zirconium	7440-67-7	3.80 J	0.476	5.17		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.154 J	0.0773	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	7.10	0.0835	0.418		2
06126	Barium	7440-39-3	113	0.111	0.418		2
06127	Beryllium	7440-41-7	1.14	0.0167	0.104		2
06128	Cadmium	7440-43-9	0.0555 J	0.0459	0.104		2
06131	Chromium	7440-47-3	24.6	0.125	0.418		2
06132	Cobalt	7440-48-4	7.74	0.0209	0.104		2
06133	Copper	7440-50-8	8.20	0.0835	0.418		2
06135	Lead	7439-92-1	7.87	0.0106	0.209		2
06138	Molybdenum	7439-98-7	1.24	0.0522	0.104		2
06139	Nickel	7440-02-0	14.8	0.104	0.418		2
06141	Selenium	7782-49-2	0.197 J	0.0606	0.418		2
06142	Silver	7440-22-4	0.0661 J	0.0148	0.104		2
06145	Thallium	7440-28-0	0.272	0.0313	0.104		2
06148	Vanadium	7440-62-2	48.5	0.0230	0.104		2
06149	Zinc	7440-66-6	58.8	0.585	3.13		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0081 J	0.0073	0.104		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.2	0.84	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.4 J	0.84	1.6		1
		EPA 314.0	ug/kg	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	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.56 J	0.21	1.1		1

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LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Reported: 11/18/2011 09:41

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.07	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	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.							

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-143-SA7-SB-5.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B112981AA	10/25/2011 16:25	Chelsea B Eastep	1.05
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E112981AA	10/25/2011 10:45	Jason M Long	30.64
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201129325922	10/20/2011 16:56	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201129325922	10/20/2011 17:09	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201129325922	10/20/2011 17:09	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201129325922	10/20/2011 16:56	Larry E Bevins	n.a.
11622	21a NDMA by 1625C	EPA 1625C	1	11298SLB026	11/02/2011 22:40	Matthew S Woods	1
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 21:16	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 11:43	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11298SLB026	10/26/2011 02:00	Sherry L Morrow	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 20:36	Laura M Krieger	27.11
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129325922	10/20/2011 16:55	Larry E Bevins	n.a.
10132	15a Energetics by 8330A	SW-846 8330A	1	113020012A	11/02/2011 00:24	James H Place	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112980025A	10/27/2011 23:15	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112970027A	10/31/2011 23:34	Jessica L Miller	1

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Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7202 SDG#: DE272-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112970027A	10/25/2011 12:00	Olivia I Santiago	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112980025A	10/27/2011 13:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	113020012A	10/31/2011 09:40	Kerrie A Freeburn	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112930033A	10/20/2011 22:03	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/25/2011 23:42	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112940009A	10/24/2011 22:26	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/28/2011 22:26	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112940009A	10/21/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112930033A	10/20/2011 20:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112975708004	10/25/2011 14:34	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026002D	10/26/2011 05:22	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026002C	10/26/2011 05:22	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026002B	10/26/2011 05:22	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026002A	10/26/2011 05:22	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711002	10/25/2011 16:15	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708004	10/24/2011 21:53	Annamaria Stipkovits	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443491
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7202 SDG#: DE272-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026002	10/24/2011 21:55	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711002	10/25/2011 01:40	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 12:04	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11300621201A	10/28/2011 12:04	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201A	11/03/2011 16:39	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 16:12	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:35	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201A	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402B	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11315162401A	11/11/2011 22:24	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 9

Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	ug/kg	
06192	Acetone	67-64-1	7.7 U	7.7	9.2		1.09
06192	Benzene	71-43-2	0.12 U	0.12	4.6		1.09
06192	Bromobenzene	108-86-1	0.15 U	0.15	4.6		1.09
06192	Bromochloromethane	74-97-5	0.38 U	0.38	4.6		1.09
06192	Bromodichloromethane	75-27-4	0.09 U	0.09	4.6		1.09
06192	Bromoform	75-25-2	0.46 U	0.46	4.6		1.09
06192	Bromomethane	74-83-9	0.29 U	0.29	4.6		1.09
06192	2-Butanone	78-93-3	1.4 U	1.4	9.2		1.09
06192	n-Butylbenzene	104-51-8	0.14 U	0.14	4.6		1.09
06192	sec-Butylbenzene	135-98-8	0.07 U	0.07	4.6		1.09
06192	tert-Butylbenzene	98-06-6	0.18 U	0.18	4.6		1.09
06192	Carbon Tetrachloride	56-23-5	0.16 U	0.16	4.6		1.09
06192	Chlorobenzene	108-90-7	0.13 U	0.13	4.6		1.09
06192	Chloroethane	75-00-3	0.15 U	0.15	4.6		1.09
06192	2-Chloroethyl Vinyl Ether	110-75-8	0.35 U	0.35	4.6		1.09
06192	Chloroform	67-66-3	0.15 J	0.14	4.6		1.09
06192	Chloromethane	74-87-3	0.38 U	0.38	4.6		1.09
06192	2-Chlorotoluene	95-49-8	0.16 U	0.16	4.6		1.09
06192	4-Chlorotoluene	106-43-4	0.16 U	0.16	4.6		1.09
06192	Chlorotrifluoroethene	79-38-9	0.58 U	0.58	5.8		1.09
06192	1,2-Dibromo-3-chloropropane	96-12-8	0.81 U	0.81	4.6		1.09
06192	Dibromochloromethane	124-48-1	0.23 U	0.23	4.6		1.09
06192	1,2-Dibromoethane	106-93-4	0.20 U	0.20	4.6		1.09
06192	Dibromomethane	74-95-3	0.28 U	0.28	4.6		1.09
06192	1,2-Dichlorobenzene	95-50-1	0.10 U	0.10	4.6		1.09
06192	1,3-Dichlorobenzene	541-73-1	0.14 U	0.14	4.6		1.09
06192	1,4-Dichlorobenzene	106-46-7	0.18 U	0.18	4.6		1.09
06192	Dichlorodifluoromethane	75-71-8	0.14 U	0.14	4.6		1.09
06192	1,1-Dichloroethane	75-34-3	0.12 U	0.12	4.6		1.09
06192	1,2-Dichloroethane	107-06-2	0.17 U	0.17	4.6		1.09
06192	1,1-Dichloroethene	75-35-4	0.45 U	0.45	4.6		1.09
06192	cis-1,2-Dichloroethene	156-59-2	0.22 U	0.22	4.6		1.09
06192	trans-1,2-Dichloroethene	156-60-5	0.14 U	0.14	4.6		1.09
06192	1,2-Dichloropropane	78-87-5	0.20 U	0.20	4.6		1.09
06192	1,3-Dichloropropane	142-28-9	0.09 U	0.09	4.6		1.09
06192	2,2-Dichloropropane	594-20-7	0.20 U	0.20	4.6		1.09
06192	1,1-Dichloropropene	563-58-6	0.15 U	0.15	4.6		1.09
06192	cis-1,3-Dichloropropene	10061-01-5	0.18 U	0.18	4.6		1.09
06192	trans-1,3-Dichloropropene	10061-02-6	0.20 U	0.20	4.6		1.09
06192	Ethylbenzene	100-41-4	0.07 U	0.07	4.6		1.09
06192	Freon 113	76-13-1	0.13 U	0.13	4.6		1.09
06192	Freon 133a	75-88-7	0.58 U	0.58	5.8		1.09
06192	Hexachlorobutadiene	87-68-3	0.16 U	0.16	4.6		1.09
06192	2-Hexanone	591-78-6	1.8 U	1.8	9.2		1.09
06192	Isopropylbenzene	98-82-8	0.07 U	0.07	4.6		1.09
06192	p-Isopropyltoluene	99-87-6	0.13 U	0.13	4.6		1.09
06192	Methyl Tertiary Butyl Ether	1634-04-4	0.24 U	0.24	4.6		1.09
06192	4-Methyl-2-pentanone	108-10-1	0.45 U	0.45	9.2		1.09
06192	Methylene Chloride	75-09-2	0.99 J	0.28	4.6		1.09
06192	n-Propylbenzene	103-65-1	0.08 U	0.08	4.6		1.09

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Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/kg	ug/kg	ug/kg	ug/kg	
06192	Styrene	100-42-5	0.12 U	0.12	4.6		1.09
06192	1,1,1,2-Tetrachloroethane	630-20-6	0.13 U	0.13	4.6		1.09
06192	1,1,2,2-Tetrachloroethane	79-34-5	0.27 U	0.27	4.6		1.09
06192	Tetrachloroethene	127-18-4	0.23 U	0.23	4.6		1.09
06192	Toluene	108-88-3	0.21 J	0.09	4.6		1.09
06192	1,2,3-Trichlorobenzene	87-61-6	0.16 U	0.16	4.6		1.09
06192	1,2,4-Trichlorobenzene	120-82-1	0.21 U	0.21	4.6		1.09
06192	1,1,1-Trichloroethane	71-55-6	0.23 U	0.23	4.6		1.09
06192	1,1,2-Trichloroethane	79-00-5	0.31 U	0.31	4.6		1.09
06192	Trichloroethene	79-01-6	0.17 U	0.17	4.6		1.09
06192	Trichlorofluoromethane	75-69-4	0.33 U	0.33	4.6		1.09
06192	1,2,3-Trichloropropane	96-18-4	0.38 U	0.38	4.6		1.09
06192	1,2,4-Trimethylbenzene	95-63-6	0.46 U	0.46	4.6		1.09
06192	1,3,5-Trimethylbenzene	108-67-8	0.12 U	0.12	4.6		1.09
06192	Vinyl Chloride	75-01-4	0.23 U	0.23	4.6		1.09
06192	m+p-Xylene	179601-23-1	0.20 U	0.20	4.6		1.09
06192	o-Xylene	95-47-6	0.20 U	0.20	4.6		1.09
GC/MS	Volatiles	SW-846 8260B SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10326	1,4-Dioxane	123-91-1	6.3 U	6.3	19		29.83
GC/MS	Semivolatiles	EPA 1625C	ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	17.4 U	17.4	34.9		1
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	180	U 180	530		1
04688	Benzyl alcohol	100-51-6	180	U 180	530		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180		1
04688	4-Chloroaniline	106-47-8	71	U 71	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530		1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	35	U 35	180		1
04688	4-Methylphenol	106-44-5	35	U 35	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	35	U 35	180		1
04688	4-Nitroaniline	100-01-6	71	U 71	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	530		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	530		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70	U 0.70	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.70	U 0.70	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.70	U 0.70	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	0.70	U 0.70	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.70	U 0.70	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.70	U 0.70	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.3	U 6.3	19		1
10138	Di-n-butylphthalate	84-74-2	6.3	U 6.3	19		1
10138	Chrysene	218-01-9	0.35	U 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.70	U 0.70	1.7		1
10138	Diethylphthalate	84-66-2	6.3	U 6.3	19		1
10138	Dimethylphthalate	131-11-3	6.3	U 6.3	19		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM							
			ug/kg	ug/kg	ug/kg	ug/kg	
10138	Bis (2-Ethylhexyl) phthalate	117-81-7	8.4 J	6.3	19		1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.7		1
10138	Fluorene	86-73-7	0.70 U	0.70	1.7		1
10138	Indeno (1,2,3-cd) pyrene	193-39-5	0.70 U	0.70	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.7		1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19		1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.7		1
10138	Pyrene	129-00-0	0.70 U	0.70	1.7		1
GC Volatiles TPH GRO SW-846 8015B mod							
			mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.3 U	0.3	1.4		32.3
Explosives SW-846 8330A							
			ug/kg	ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	62 U	62	120	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	42 U	42	120	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	83 U	83	250	1000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	83 U	83	250	1000000	1
10132	1,3-Dinitrobenzene	99-65-0	42 U	42	120	1000000	1
10132	2,4-Dinitrotoluene	121-14-2	42 U	42	120	1000000	1
10132	2,6-Dinitrotoluene	606-20-2	42 U	42	120	1000000	1
10132	HMX	2691-41-0	100 U	100	310	1000000	1
10132	Nitrobenzene	98-95-3	42 U	42	120	1000000	1
10132	Nitroglycerin	55-63-0	830 U	830	2,500	1000000	1
10132	2-Nitrotoluene	88-72-2	83 U	83	120	1000000	1
10132	3-Nitrotoluene	99-08-1	100 U	100	120	1000000	1
10132	4-Nitrotoluene	99-99-0	83 U	83	120	1000000	1
10132	PETN	78-11-5	830 U	830	2,500	1000000	1
10132	RDX	121-82-4	52 U	52	120	1000000	1
10132	Tetryl	479-45-8	64 U	64	120	1000000	1

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Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/kg	ug/kg	ug/kg	ug/kg	
10132	1,3,5-Trinitrobenzene	99-35-4	42 U	42	120	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	42 U	42	120	10000000	1
HPLC Organics		SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde	50-00-0	640 U	640	1,600		1
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5		1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8		1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8		1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8		1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8		1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	530		1
10501	Isopropanol	67-63-0	110 U	110	530		1
10501	Methanol	67-56-1	110 U	110	530		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11		1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11		1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	0.50 J	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	2.3	0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	3.6	0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,100	6.29	20.8		1
07914	Boron	7440-42-8	0.975 J	0.374	5.20		1
01650	Calcium	7440-70-2	2,110	2.60	20.8		1
01654	Iron	7439-89-6	20,500	2.71	20.8		1
01656	Lithium	7439-93-2	28.5	0.64	2.1		1
01657	Magnesium	7439-95-4	4,030	0.457	10.4		1
06958	Manganese	7439-96-5	161	0.0374	0.520		1
10145	Phosphorus	7723-14-0	137	0.364	10.4		1
01662	Potassium	7440-09-7	1,250	11.7	52.0		1
01667	Sodium	7440-23-5	106	6.19	104		1
07968	Strontium	7440-24-6	15.8	0.0260	0.520		1
06969	Tin	7440-31-5	3.03 J	0.333	10.4		1
06970	Titanium	7440-32-6	1,220	0.0738	1.04		1
10146	Zirconium	7440-67-7	3.23 J	0.478	5.20		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.189 J	0.0762	0.206		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	7.25	0.0824	0.412		2
06126	Barium	7440-39-3	95.3	0.109	0.412		2
06127	Beryllium	7440-41-7	0.980	0.0165	0.103		2
06128	Cadmium	7440-43-9	0.0453 U	0.0453	0.103		2
06131	Chromium	7440-47-3	27.0	0.124	0.412		2
06132	Cobalt	7440-48-4	5.25	0.0206	0.103		2
06133	Copper	7440-50-8	7.13	0.0824	0.412		2
06135	Lead	7439-92-1	7.73	0.0105	0.206		2
06138	Molybdenum	7439-98-7	2.08	0.0515	0.103		2
06139	Nickel	7440-02-0	13.9	0.103	0.412		2
06141	Selenium	7782-49-2	0.223 J	0.0597	0.412		2
06142	Silver	7440-22-4	0.0815 J	0.0146	0.103		2
06145	Thallium	7440-28-0	0.239	0.0309	0.103		2
06148	Vanadium	7440-62-2	53.8	0.0227	0.103		2
06149	Zinc	7440-66-6	54.7	0.577	3.09		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.5	0.85	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.4 J	0.85	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.8		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.81 J	0.21	1.1		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry							
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.53		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.85	0.0100	0.0100		1
Wet Chemistry							
11624	Moisture Content by 160.3	n.a.	5.7	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-143-SA7-SB-9.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06192	1a Volatile Organics EPA 8260B	SW-846 8260B	1	B112981AA	10/25/2011 16:48	Chelsea B Eastep	1.09
10326	14a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E112981AA	10/25/2011 11:05	Jason M Long	29.83
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201129325922	10/20/2011 17:00	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201129325922	10/20/2011 17:09	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201129325922	10/20/2011 17:09	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201129325922	10/20/2011 17:01	Larry E Bevins	n.a.
11622	21a NDMA by 1625C	EPA 1625C	1	11298SLB026	11/02/2011 23:37	Matthew S Woods	1
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 21:41	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 13:22	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11298SLB026	10/26/2011 02:00	Sherry L Morrow	1
10479	BNM Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNM Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 21:14	Laura M Krieger	32.3
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129325922	10/20/2011 17:00	Larry E Bevins	n.a.
10132	15a Energetics by 8330A	SW-846 8330A	1	113020012A	11/02/2011 02:31	James H Place	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112980025A	10/27/2011 23:43	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112970027A	10/31/2011 23:53	Jessica L Miller	1

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Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112970027A	10/25/2011 12:00	Olivia I Santiago	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112980025A	10/27/2011 13:00	Kelli M Barto	1
11137	Energetics Extraction	SW-846 8330	1	113020012A	10/31/2011 09:40	Kerrie A Freeburn	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112930033A	10/20/2011 22:19	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/25/2011 23:55	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112940009A	10/24/2011 20:58	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/28/2011 22:50	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112940009A	10/21/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112930033A	10/20/2011 20:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112975708004	10/25/2011 14:38	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026002D	10/26/2011 05:25	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026002C	10/26/2011 05:25	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026002B	10/26/2011 05:25	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026002A	10/26/2011 05:25	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711002	10/25/2011 16:16	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708004	10/24/2011 21:53	Annamaria Stipkovits	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443492
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7203 SDG#: DE272-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026002	10/24/2011 21:55	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711002	10/25/2011 01:40	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 12:19	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11300621201A	10/28/2011 12:19	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201A	11/03/2011 17:21	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11298243201A	10/26/2011 16:19	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:41	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201A	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402B	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11315162401A	11/11/2011 22:24	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443493
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7204 SDG#: DE272-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170		1
04688	4-Chloroaniline	106-47-8	69	U 69	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	18	J 17	350		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	35	U 35	170		1
04688	4-Methylphenol	106-44-5	35	U 35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	35	U 35	170		1
04688	4-Nitroaniline	100-01-6	69	U 69	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520		1

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Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443493
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7204 SDG#: DE272-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	17	U 17	170		1
04688	Tetralin	119-64-2	170	U 170	170		1
1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7		1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7		1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.68	U 0.68	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.68	U 0.68	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	0.87	J 0.68	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.68	U 0.68	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	1.9	0.68	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.1	U 6.1	18		1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18		1
10138	Chrysene	218-01-9	0.85	J 0.34	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7		1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18		1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18		1
10138	Fluoranthene	206-44-0	1.1	J 0.68	1.7		1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7		1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18		1
10138	Phenanthrene	85-01-8	0.68	U 0.68	1.7		1
10138	Pyrene	129-00-0	0.89	J 0.68	1.7		1
GC Volatiles	TPH GRO mod	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	J 0.2	1.1		26.32
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0	U 1.0	3.4		1
10225	Aroclor 5442	12642-23-8	1.0	U 1.0	3.4		1
10225	Aroclor 5460	11126-42-4	9.5	1.0	3.4		1
10225	PCB-1016	12674-11-2	0.34	U 0.34	1.8		1
10225	PCB-1221	11104-28-2	0.34	U 0.34	1.8		1
10225	PCB-1232	11141-16-5	0.34	U 0.34	1.8		1
10225	PCB-1242	53469-21-9	0.34	U 0.34	1.8		1
10225	PCB-1248	12672-29-6	0.34	U 0.34	1.8		1

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Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443493
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7204 SDG#: DE272-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	11	0.34	1.8		1
10225	PCB-1260	11096-82-5	3.9	0.41	1.8		1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8		1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520		1
10501	Isopropanol	67-63-0	100 U	100	520		1
10501	Methanol	67-56-1	100 U	100	520		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10		1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10		1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.6		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.6		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.6		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.56 J	0.42	1.2		1
10199	EFH (C15-C20)	n.a.	1.0 J	0.42	1.2		1
10199	EFH (C21-C30)	n.a.	5.2	0.42	1.2		1
10199	EFH (C30 - C40)	n.a.	9.1	0.42	1.2		1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.2		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,800	6.17	20.4		1
07914	Boron	7440-42-8	1.61 J	0.367	5.10		1
01650	Calcium	7440-70-2	2,840	2.55	20.4		1
01654	Iron	7439-89-6	21,000	2.66	20.4		1
01656	Lithium	7439-93-2	30.7	0.63	2.0		1
01657	Magnesium	7439-95-4	4,800	0.449	10.2		1
06958	Manganese	7439-96-5	333	0.0367	0.510		1
10145	Phosphorus	7723-14-0	410	0.357	10.2		1
01662	Potassium	7440-09-7	2,990	11.5	51.0		1
01667	Sodium	7440-23-5	90.5 J	6.07	102		1
07968	Strontium	7440-24-6	20.3	0.0255	0.510		1
06969	Tin	7440-31-5	2.79 J	0.326	10.2		1
06970	Titanium	7440-32-6	1,220	0.0724	1.02		1
10146	Zirconium	7440-67-7	2.77 J	0.469	5.10		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	

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Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443493
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/20/2011 09:15

Reported: 11/18/2011 09:41

E7204 SDG#: DE272-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.102 J	0.0755	0.204		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.42	0.0816	0.408		2
06126	Barium	7440-39-3	93.4	0.108	0.408		2
06127	Beryllium	7440-41-7	0.548	0.0163	0.102		2
06128	Cadmium	7440-43-9	0.148	0.0449	0.102		2
06131	Chromium	7440-47-3	17.6	0.122	0.408		2
06132	Cobalt	7440-48-4	5.56	0.0204	0.102		2
06133	Copper	7440-50-8	7.54	0.0816	0.408		2
06135	Lead	7439-92-1	5.27	0.0104	0.204		2
06138	Molybdenum	7439-98-7	0.523	0.0510	0.102		2
06139	Nickel	7440-02-0	10.5	0.102	0.408		2
06141	Selenium	7782-49-2	0.130 J	0.0592	0.408		2
06142	Silver	7440-22-4	0.0294 J	0.0145	0.102		2
06145	Thallium	7440-28-0	0.259	0.0306	0.102		2
06148	Vanadium	7440-62-2	34.2	0.0224	0.102		2
06149	Zinc	7440-66-6	54.9	0.571	3.06		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0985		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.9	0.84	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.2		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.31 J	0.21	1.0		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.18 U	0.18	0.51		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.89	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	3.9	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.						

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Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 5 of 6

Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443493
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7204 SDG#: DE272-04

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-142-SA7-SB-2.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08390	GC/MS - HL Encore Prep	SW-846 5035	1	201129325922	10/20/2011 17:04	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201129325922	10/20/2011 17:09	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201129325922	10/20/2011 17:09	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201129325922	10/20/2011 17:05	Larry E Bevins	n.a.
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 22:06	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 13:56	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/27/2011 17:10	Laura M Krieger	26.32
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129325922	10/20/2011 17:05	Larry E Bevins	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112970027A	11/01/2011 00:12	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112970027A	10/25/2011 12:00	Olivia I Santiago	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112930033A	10/20/2011 22:35	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:07	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112940009A	10/24/2011 22:04	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/28/2011 23:14	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112940009A	10/21/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112930033A	10/20/2011 20:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1

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Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443493
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7204 SDG#: DE272-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010B	1	112975708004	10/25/2011 14:41	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026002D	10/26/2011 05:28	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026002C	10/26/2011 05:28	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026002B	10/26/2011 05:28	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026002A	10/26/2011 05:28	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711002	10/25/2011 16:20	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708004	10/24/2011 21:53	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026002	10/24/2011 21:55	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711002	10/25/2011 01:40	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 12:34	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201A	11/03/2011 17:42	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 16:39	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:42	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201A	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402B	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401A	10/28/2011 22:37	Lisa J Cooke	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 6

Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443494
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7205 SDG#: DE272-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	180	U 180	530		1
04688	Benzyl alcohol	100-51-6	180	U 180	530		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180		1
04688	4-Chloroaniline	106-47-8	70	U 70	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530		1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	35	U 35	180		1
04688	4-Methylphenol	106-44-5	35	U 35	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	35	U 35	180		1
04688	4-Nitroaniline	100-01-6	70	U 70	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	530		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	530		1
04688	Phenol	108-95-2	18	U 18	180		1

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Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443494
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7205 SDG#: DE272-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	1.0	J 0.69	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.77	J 0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	3.0	U 0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.76	J 0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	2.8	U 0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	6.2	U 6.2	19		1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19		1
10138	Chrysene	218-01-9	1.9	U 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7		1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19		1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	150	U 6.2	19		1
10138	Fluoranthene	206-44-0	2.2	U 0.69	1.7		1
10138	Fluorene	86-73-7	0.92	J 0.69	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7		1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19		1
10138	Phenanthrene	85-01-8	0.90	J 0.69	1.7		1
10138	Pyrene	129-00-0	1.4	J 0.69	1.7		1
GC Volatiles	TPH GRO mod	SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.1		25
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.5		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.5		1
10225	Aroclor 5460	11126-42-4	3.0	J 1.1	3.5		1
10225	PCB-1016	12674-11-2	0.35	U 0.35	1.8		1
10225	PCB-1221	11104-28-2	0.35	U 0.35	1.8		1
10225	PCB-1232	11141-16-5	0.35	U 0.35	1.8		1
10225	PCB-1242	53469-21-9	0.35	U 0.35	1.8		1
10225	PCB-1248	12672-29-6	0.35	U 0.35	1.8		1

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SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443494
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/20/2011 09:15

Reported: 11/18/2011 09:41

E7205 SDG#: DE272-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	5.9	0.35	1.8		1
10225	PCB-1260	11096-82-5	1.6 J	0.41	1.8		1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	530		1
10501	Isopropanol	67-63-0	110 U	110	530		1
10501	Methanol	67-56-1	110 U	110	530		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11		1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11		1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	2.6	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	10	0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	20	0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,000	6.14	20.3		1
07914	Boron	7440-42-8	0.916 J	0.366	5.08		1
01650	Calcium	7440-70-2	2,580	2.54	20.3		1
01654	Iron	7439-89-6	19,700	2.65	20.3		1
01656	Lithium	7439-93-2	25.4	0.63	2.0		1
01657	Magnesium	7439-95-4	3,850	0.447	10.2		1
06958	Manganese	7439-96-5	228	0.0366	0.508		1
10145	Phosphorus	7723-14-0	268	0.355	10.2		1
01662	Potassium	7440-09-7	2,300	11.5	50.8		1
01667	Sodium	7440-23-5	95.8 J	6.04	102		1
07968	Strontium	7440-24-6	16.2	0.0254	0.508		1
06969	Tin	7440-31-5	2.75 J	0.325	10.2		1
06970	Titanium	7440-32-6	1,050	0.0721	1.02		1
10146	Zirconium	7440-67-7	2.78 J	0.467	5.08		1
SW-846 6020			mg/kg	mg/kg	mg/kg	mg/kg	

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Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443494
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/20/2011 09:15

Reported: 11/18/2011 09:41

E7205 SDG#: DE272-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0774 U	0.0774	0.209		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.35	0.0836	0.418		2
06126	Barium	7440-39-3	78.2	0.111	0.418		2
06127	Beryllium	7440-41-7	0.552	0.0167	0.105		2
06128	Cadmium	7440-43-9	0.128	0.0460	0.105		2
06131	Chromium	7440-47-3	14.6	0.125	0.418		2
06132	Cobalt	7440-48-4	4.48	0.0209	0.105		2
06133	Copper	7440-50-8	6.22	0.0836	0.418		2
06135	Lead	7439-92-1	8.15	0.0107	0.209		2
06138	Molybdenum	7439-98-7	0.645	0.0523	0.105		2
06139	Nickel	7440-02-0	8.55	0.105	0.418		2
06141	Selenium	7782-49-2	0.362 J	0.0606	0.418		2
06142	Silver	7440-22-4	0.0484 J	0.0148	0.105		2
06145	Thallium	7440-28-0	0.187	0.0314	0.105		2
06148	Vanadium	7440-62-2	28.7	0.0230	0.105		2
06149	Zinc	7440-66-6	52.3	0.585	3.14		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0231 J	0.0070	0.0991		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.0	0.85	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.7		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.49 J	0.21	1.0		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.51	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	5.3	0.50	0.50		1
	"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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Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443494
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.

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Suite 210

Chantilly VA 20151

E7205 SDG#: DE272-05

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-142-SA7-SB-5.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 22:32	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 14:28	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 21:52	Laura M Krieger	25
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129325922	10/20/2011 17:07	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129325922	10/20/2011 17:07	Larry E Bevins	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112970027A	11/01/2011 00:30	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112970027A	10/25/2011 12:00	Olivia I Santiago	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112930033A	10/20/2011 22:52	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:20	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112940009A	10/24/2011 22:48	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/28/2011 23:38	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	2	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112940009A	10/21/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112930033A	10/20/2011 20:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
07914	Boron	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
01650	Calcium	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
01654	Iron	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
01656	Lithium	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
01657	Magnesium	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
06958	Manganese	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
10145	Phosphorus	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
01662	Potassium	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
01667	Sodium	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
07968	Strontium	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
06969	Tin	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112975708004	10/25/2011 14:45	Eric L Eby	1
06124	Antimony	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026002D	10/26/2011 05:31	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2

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Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 6 of 6

Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443494
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/18/2011 09:41

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Chantilly VA 20151

E7205 SDG#: DE272-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026002C	10/26/2011 05:31	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026002B	10/26/2011 05:31	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026002A	10/26/2011 05:31	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711002	10/25/2011 16:21	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708004	10/24/2011 21:53	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026002	10/24/2011 21:55	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711002	10/25/2011 01:40	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11300621201A	10/28/2011 12:48	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201A	11/03/2011 18:03	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11298243201A	10/26/2011 16:52	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:43	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11300621201A	10/27/2011 06:55	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201A	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039402B	10/27/2011 10:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11298243201A	10/25/2011 09:10	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401A	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443495
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7206 SDG#: DE272-06EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	3.66	0.527	1.05		1
N-nitrosodimethylamine was detected in the method blank at a concentration of .887 ng/l. The blank value was not subtracted from the analytical result. Sufficient sample was unavailable to repeat the analysis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11297WAC026	11/02/2011 18:54	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11297WAC026	10/24/2011 14:20	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: TB-101911 Water
SSFL Area IV Collocated Soil Sampling
TB-101911

LLI Sample # WW 6443496
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7207 SDG#: DE272-07TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.860 J	0.495	0.990		1
N-nitrosodimethylamine was detected in the method blank at a concentration of .887 ng/l. The blank value was not subtracted from the analytical result. Sufficient sample was unavailable to repeat the analysis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11297WAC026	11/02/2011 19:12	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11297WAC026	10/24/2011 14:20	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 1

Sample Description: TB-101911 Sand
SSFL Area IV Collocated Soil Sampling
TB-101911

LLI Sample # SW 6443497
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7208 SDG#: DE272-08TB

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles	EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	16.6 U	16.6	33.1		1
Wet Chemistry	EPA 160.3 modified		%	%	%	%	
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11298SLB026	11/02/2011 23:56	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	1	11298SLB026	10/26/2011 02:00	Sherry L Morrow	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401A	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: TB-101911 Water
SSFL Area IV Collocated Soil Sampling
TB-101911

LLI Sample # WW 6443498
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 08:00

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7209 SDG#: DE272-09TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Acetone	67-64-1	6 U	6	20		1
10904	Benzene	71-43-2	0.5 U	0.5	5		1
10904	Bromobenzene	108-86-1	1 U	1	5		1
10904	Bromochloromethane	74-97-5	1 U	1	5		1
10904	Bromodichloromethane	75-27-4	1 U	1	5		1
10904	Bromoform	75-25-2	1 U	1	5		1
10904	Bromomethane	74-83-9	1 U	1	5		1
10904	2-Butanone	78-93-3	3 U	3	10		1
10904	n-Butylbenzene	104-51-8	1 U	1	5		1
10904	sec-Butylbenzene	135-98-8	1 U	1	5		1
10904	tert-Butylbenzene	98-06-6	1 U	1	5		1
10904	Carbon Tetrachloride	56-23-5	1 U	1	5		1
10904	Chlorobenzene	108-90-7	0.8 U	0.8	5		1
10904	Chloroethane	75-00-3	1 U	1	5		1
10904	2-Chloroethyl Vinyl Ether	110-75-8	2 U	2	10		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10904	Chloroform	67-66-3	0.8 U	0.8	5		1
10904	Chloromethane	74-87-3	1 U	1	5		1
10904	2-Chlorotoluene	95-49-8	1 U	1	5		1
10904	4-Chlorotoluene	106-43-4	1 U	1	5		1
10904	Chlorotrifluoroethene	79-38-9	2 U	2	5		1
10904	1,2-Dibromo-3-chloropropane	96-12-8	2 U	2	5		1
10904	Dibromochloromethane	124-48-1	1 U	1	5		1
10904	1,2-Dibromoethane	106-93-4	1 U	1	5		1
10904	Dibromomethane	74-95-3	1 U	1	5		1
10904	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
10904	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
10904	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
10904	Dichlorodifluoromethane	75-71-8	2 U	2	5		1
10904	1,1-Dichloroethane	75-34-3	1 U	1	5		1
10904	1,2-Dichloroethane	107-06-2	1 U	1	5		1
10904	1,1-Dichloroethene	75-35-4	0.8 U	0.8	5		1
10904	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5		1
10904	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5		1
10904	1,2-Dichloropropane	78-87-5	1 U	1	5		1
10904	1,3-Dichloropropane	142-28-9	1 U	1	5		1
10904	2,2-Dichloropropane	594-20-7	1 U	1	5		1
10904	1,1-Dichloropropene	563-58-6	1 U	1	5		1
10904	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5		1
10904	trans-1,3-Dichloropropene	10061-02-6	1 U	1	5		1
10904	Ethylbenzene	100-41-4	0.8 U	0.8	5		1
10904	Freon 113	76-13-1	2 U	2	10		1
10904	Freon 133a	75-88-7	2 U	2	5		1
10904	Hexachlorobutadiene	87-68-3	2 U	2	5		1
10904	2-Hexanone	591-78-6	3 U	3	10		1
10904	Isopropylbenzene	98-82-8	1 U	1	5		1
10904	p-Isopropyltoluene	99-87-6	1 U	1	5		1
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5		1
10904	4-Methyl-2-pentanone	108-10-1	3 U	3	10		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: TB-101911 Water
SSFL Area IV Collocated Soil Sampling
TB-101911

LLI Sample # WW 6443498
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7209 SDG#: DE272-09TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Methylene Chloride	75-09-2	2 U	2	5		1
10904	n-Propylbenzene	103-65-1	1 U	1	5		1
10904	Styrene	100-42-5	1 U	1	5		1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5		1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5		1
10904	Tetrachloroethene	127-18-4	0.8 U	0.8	5		1
10904	Toluene	108-88-3	0.7 U	0.7	5		1
10904	1,2,3-Trichlorobenzene	87-61-6	1 U	1	5		1
10904	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
10904	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5		1
10904	1,1,2-Trichloroethane	79-00-5	0.8 U	0.8	5		1
10904	Trichloroethene	79-01-6	1 U	1	5		1
10904	Trichlorofluoromethane	75-69-4	2 U	2	5		1
10904	1,2,3-Trichloropropane	96-18-4	1 U	1	5		1
10904	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5		1
10904	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5		1
10904	Vinyl Chloride	75-01-4	1 U	1	5		1
10904	m+p-Xylene	179601-23-1	0.8 U	0.8	5		1
10904	o-Xylene	95-47-6	0.8 U	0.8	5		1
GC/MS	Volatiles	SW-846 8260B SIM	ug/l	ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5 U	0.5	2.0		1
GC	Volatiles	TPH GRO SW-8015B	ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10904	1b Volatile Organics EPA8260B	SW-846 8260B	1	Y112992AA	10/26/2011 12:35	Nicholas R Rossi	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E112972AA	10/24/2011 19:39	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E112972AA	10/24/2011 19:39	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y112992AA	10/26/2011 12:35	Nicholas R Rossi	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11297B20A	10/25/2011 11:42	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11297B20A	10/25/2011 11:42	Marie D John	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Acetone	67-64-1	6 U	6	20		1
10904	Benzene	71-43-2	0.5 U	0.5	5		1
10904	Bromobenzene	108-86-1	1 U	1	5		1
10904	Bromochloromethane	74-97-5	1 U	1	5		1
10904	Bromodichloromethane	75-27-4	1 U	1	5		1
10904	Bromoform	75-25-2	1 U	1	5		1
10904	Bromomethane	74-83-9	1 U	1	5		1
10904	2-Butanone	78-93-3	3 U	3	10		1
10904	n-Butylbenzene	104-51-8	1 U	1	5		1
10904	sec-Butylbenzene	135-98-8	1 U	1	5		1
10904	tert-Butylbenzene	98-06-6	1 U	1	5		1
10904	Carbon Tetrachloride	56-23-5	1 U	1	5		1
10904	Chlorobenzene	108-90-7	0.8 U	0.8	5		1
10904	Chloroethane	75-00-3	1 U	1	5		1
10904	2-Chloroethyl Vinyl Ether	110-75-8	2 U	2	10		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10904	Chloroform	67-66-3	0.8 U	0.8	5		1
10904	Chloromethane	74-87-3	1 U	1	5		1
10904	2-Chlorotoluene	95-49-8	1 U	1	5		1
10904	4-Chlorotoluene	106-43-4	1 U	1	5		1
10904	Chlorotrifluoroethene	79-38-9	2 U	2	5		1
10904	1,2-Dibromo-3-chloropropane	96-12-8	2 U	2	5		1
10904	Dibromochloromethane	124-48-1	1 U	1	5		1
10904	1,2-Dibromoethane	106-93-4	1 U	1	5		1
10904	Dibromomethane	74-95-3	1 U	1	5		1
10904	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
10904	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
10904	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
10904	Dichlorodifluoromethane	75-71-8	2 U	2	5		1
10904	1,1-Dichloroethane	75-34-3	1 U	1	5		1
10904	1,2-Dichloroethane	107-06-2	1 U	1	5		1
10904	1,1-Dichloroethene	75-35-4	0.8 U	0.8	5		1
10904	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5		1
10904	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5		1
10904	1,2-Dichloropropane	78-87-5	1 U	1	5		1
10904	1,3-Dichloropropane	142-28-9	1 U	1	5		1
10904	2,2-Dichloropropane	594-20-7	1 U	1	5		1
10904	1,1-Dichloropropene	563-58-6	1 U	1	5		1
10904	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5		1
10904	trans-1,3-Dichloropropene	10061-02-6	1 U	1	5		1
10904	Ethylbenzene	100-41-4	0.8 U	0.8	5		1
10904	Freon 113	76-13-1	2 U	2	10		1
10904	Freon 133a	75-88-7	2 U	2	5		1
10904	Hexachlorobutadiene	87-68-3	2 U	2	5		1
10904	2-Hexanone	591-78-6	3 U	3	10		1
10904	Isopropylbenzene	98-82-8	1 U	1	5		1
10904	p-Isopropyltoluene	99-87-6	1 U	1	5		1
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5		1
10904	4-Methyl-2-pentanone	108-10-1	3 U	3	10		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Methylene Chloride	75-09-2	5 J	2	5		1
10904	n-Propylbenzene	103-65-1	1 U	1	5		1
10904	Styrene	100-42-5	1 U	1	5		1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5		1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5		1
10904	Tetrachloroethene	127-18-4	0.8 U	0.8	5		1
10904	Toluene	108-88-3	0.7 U	0.7	5		1
10904	1,2,3-Trichlorobenzene	87-61-6	1 U	1	5		1
10904	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
10904	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5		1
10904	1,1,2-Trichloroethane	79-00-5	0.8 U	0.8	5		1
10904	Trichloroethene	79-01-6	1 U	1	5		1
10904	Trichlorofluoromethane	75-69-4	2 U	2	5		1
10904	1,2,3-Trichloropropane	96-18-4	1 U	1	5		1
10904	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5		1
10904	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5		1
10904	Vinyl Chloride	75-01-4	1 U	1	5		1
10904	m+p-Xylene	179601-23-1	0.8 U	0.8	5		1
10904	o-Xylene	95-47-6	0.8 U	0.8	5		1
GC/MS	Volatiles	SW-846 8260B SIM	ug/l	ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5 U	0.5	2.0		1
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	4.55	0.500	1.00		1
N-Nitrosodimethylamine was detected in the method blank at a concentration of .887 ng/l. The blank value was not subtracted from the analytical result. This sample was re-extracted outside of the method required holding time, and N-Nitrosodimethylamine was again detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.							
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1 U	1	5		1
04678	Benzidine	92-87-5	20 U	20	60		1
04678	Benzoic acid	65-85-0	6 U	6	15		1
04678	Benzyl alcohol	100-51-6	5 U	5	15		1
04678	4-Bromophenyl-phenylether	101-55-3	1 U	1	5		1
04678	2-butoxy-Ethanol	111-76-2	50 U	50	50		1
04678	Carbazole	86-74-8	1 U	1	5		1
04678	4-Chloro-3-methylphenol	59-50-7	1 U	1	5		1
04678	4-Chloroaniline	106-47-8	1 U	1	5		1
04678	bis(2-Chloroethoxy)methane	111-91-1	1 U	1	5		1
04678	bis(2-Chloroethyl)ether	111-44-4	1 U	1	5		1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1 U	1	5		1
04678	2-Chloronaphthalene	91-58-7	2 U	2	5		1
04678	2-Chlorophenol	95-57-8	1 U	1	5		1
04678	4-Chlorophenyl-phenylether	7005-72-3	2 U	2	5		1
04678	Dibenzofuran	132-64-9	1 U	1	5		1
04678	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
04678	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
04678	3,3'-Dichlorobenzidine	91-94-1	2 U	2	5		1
04678	2,4-Dichlorophenol	120-83-2	1 U	1	5		1
04678	2,4-Dimethylphenol	105-67-9	3 U	3	10		1
04678	3,5-Dimethylphenol	108-68-9	3 U	3	10		1
04678	4,6-Dinitro-2-methylphenol	534-52-1	5 U	5	15		1
04678	2,4-Dinitrophenol	51-28-5	10 U	10	30		1
04678	2,4-Dinitrotoluene	121-14-2	1 U	1	5		1
04678	2,6-Dinitrotoluene	606-20-2	1 U	1	5		1
04678	1,2-Diphenylhydrazine	122-66-7	1 U	1	5		1
04678	Hexachlorobenzene	118-74-1	1 U	1	5		1
04678	Hexachlorobutadiene	87-68-3	1 U	1	5		1
04678	Hexachlorocyclopentadiene	77-47-4	5 U	5	15		1
04678	Hexachloroethane	67-72-1	1 U	1	5		1
04678	Isophorone	78-59-1	1 U	1	5		1
04678	2-Methylphenol	95-48-7	1 U	1	5		1
04678	4-Methylphenol	106-44-5	2 U	2	5		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04678	2-Nitroaniline	88-74-4	1 U	1	5		1
04678	3-Nitroaniline	99-09-2	1 U	1	5		1
04678	4-Nitroaniline	100-01-6	1 U	1	5		1
04678	Nitrobenzene	98-95-3	1 U	1	5		1
04678	2-Nitrophenol	88-75-5	1 U	1	5		1
04678	4-Nitrophenol	100-02-7	10 U	10	30		1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	5		1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	5		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04678	Pentachlorophenol	87-86-5	3 U	3	15		1
04678	Phenol	108-95-2	1 U	1	5		1
04678	2-phenoxy-Ethanol	122-99-6	50 U	50	50		1
04678	Tetralin	119-64-2	5 U	5	5		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04678	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
04678	2,4,5-Trichlorophenol	95-95-4	1 U	1	5		1
04678	2,4,6-Trichlorophenol	88-06-2	1 U	1	5		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.011 U	0.011	0.053		1
10137	Acenaphthylene	208-96-8	0.011 U	0.011	0.053		1
10137	Anthracene	120-12-7	0.011 U	0.011	0.053		1
10137	Benzo(a)anthracene	56-55-3	0.011 U	0.011	0.053		1
10137	Benzo(a)pyrene	50-32-8	0.011 U	0.011	0.053		1

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Analysis Report

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Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Benzo(b)fluoranthene	205-99-2	0.011 U	0.011	0.053		1
10137	Benzo(g,h,i)perylene	191-24-2	0.011 U	0.011	0.053		1
10137	Benzo(k)fluoranthene	207-08-9	0.011 U	0.011	0.053		1
10137	Butylbenzylphthalate	85-68-7	0.053 U	0.053	1.1		1
10137	Di-n-butylphthalate	84-74-2	0.27 J	0.053	1.1		1
10137	Chrysene	218-01-9	0.011 U	0.011	0.053		1
10137	Dibenz(a,h)anthracene	53-70-3	0.011 U	0.011	0.053		1
10137	Diethylphthalate	84-66-2	0.19 J	0.053	1.1		1
10137	Dimethylphthalate	131-11-3	0.053 U	0.053	1.1		1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.16 J	0.053	1.1		1
10137	Fluoranthene	206-44-0	0.011 U	0.011	0.053		1
10137	Fluorene	86-73-7	0.011 U	0.011	0.053		1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.011 U	0.011	0.053		1
10137	1-Methylnaphthalene	90-12-0	0.011 U	0.011	0.053		1
10137	2-Methylnaphthalene	91-57-6	0.011 U	0.011	0.053		1
10137	Naphthalene	91-20-3	0.039 J	0.032	0.053		1
10137	N-Nitrosodimethylamine	62-75-9	0.011 U	0.011	0.053		1
10137	Di-n-octylphthalate	117-84-0	0.096 J	0.053	1.1		1
10137	Phenanthrene	85-01-8	0.032 U	0.032	0.053		1
10137	Pyrene	129-00-0	0.011 U	0.011	0.053		1

The recoveries of dimethylphthalate and butylbenzylphthalate were outside of QC limits in the LCS/LCSD. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed between the two extractions. The data reported here is from the initial extracion of the sample.

Di-n-octylphthalate was detected in the method blank at a concentration of .094 ug/l. The blank value was not subtracted from the analytical result. Di-n-octylphthalate was not detected in the re-extraction of the sample.

Reporting limits were raised due to limited sample volume.

GC Volatiles	TPH GRO	SW-8015B	ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water	C5-C12	n.a.	20 U	20	50	1
Explosives	SW-846	8330A	ug/l	ug/l	ug/l	ug/l	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.30 U	0.30	0.60	1000000	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.20 U	0.20	0.60	1000000	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.20 U	0.20	0.60	1000000	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.20 U	0.20	0.60	1000000	1
10131	1,3-Dinitrobenzene	99-65-0	0.20 U	0.20	0.60	1000000	1
10131	2,4-Dinitrotoluene	121-14-2	0.20 U	0.20	0.60	1000000	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/l	ug/l	ug/l	ug/l	
10131	2,6-Dinitrotoluene	606-20-2	0.20 U	0.20	0.60	1000000 0	1
10131	HMX	2691-41-0	0.65 U	0.65	2.0	1000000 0	1
10131	Nitrobenzene	98-95-3	0.20 U	0.20	0.60	1000000 0	1
10131	Nitroglycerin	55-63-0	5.2 U	5.2	15	1000000 0	1
10131	2-Nitrotoluene	88-72-2	0.20 U	0.20	0.60	1000000 0	1
10131	3-Nitrotoluene	99-08-1	0.40 U	0.40	1.2	1000000 0	1
10131	4-Nitrotoluene	99-99-0	0.60 U	0.60	1.2	1000000 0	1
10131	PETN	78-11-5	6.0 U	6.0	18	1000000 0	1
10131	RDX	121-82-4	0.99 U	0.20	0.60	1000000 0	1
10131	Tetryl	479-45-8	0.40 U	0.40	0.60	1000000 0	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.20 U	0.20	0.60	1000000 0	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.20 U	0.20	0.60	1000000 0	1
HPLC Organics		SW-846 8315A	ug/l	ug/l	ug/l	ug/l	
04144	20b Formaldehyde 8315A	50-00-0	10 U	10	50		1
Pesticides/PCBs		SW-846 8082	ug/l	ug/l	ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.11 U	0.11	0.55		1
10227	Aroclor 5442	12642-23-8	0.11 U	0.11	0.55		1
10227	Aroclor 5460	11126-42-4	0.11 U	0.11	0.55		1
10227	PCB-1016	12674-11-2	0.11 U	0.11	0.55		1
10227	PCB-1221	11104-28-2	0.11 U	0.11	0.55		1
10227	PCB-1232	11141-16-5	0.22 U	0.22	0.55		1
10227	PCB-1242	53469-21-9	0.11 U	0.11	0.55		1
10227	PCB-1248	12672-29-6	0.11 U	0.11	0.55		1
10227	PCB-1254	11097-69-1	0.11 U	0.11	0.55		1
10227	PCB-1260	11096-82-5	0.16 U	0.16	0.55		1
10227	PCB-1262	37324-23-5	0.22 U	0.22	0.55		1
10227	PCB-1268	11100-14-4	0.18 U	0.18	0.55		1
GC Miscellaneous		SW-846 8015B	ug/l	ug/l	ug/l	ug/l	
06624	Ethanol	64-17-5	200 U	200	1,000		1
06624	Isopropanol	67-63-0	200 U	200	1,000		1
06624	Methanol	67-56-1	200 U	200	1,000		1

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Analysis Report

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Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC Miscellaneous	SW-846 8015B modified		mg/l		mg/l	mg/l	mg/l	
08278	Diethylene glycol	111-46-6	20	U	20	200		1
08278	Ethylene glycol	107-21-1	20	U	20	200		1
08278	Propylene glycol	57-55-6	20	U	20	200		1
GC Petroleum Hydrocarbons	SW-846 8015B		mg/l		mg/l	mg/l	mg/l	
10319	m-Terphenyl	92-06-8	0.085	U	0.085	0.27		1
10319	o-Terphenyl	84-15-1	0.085	U	0.085	0.27		1
10319	p-Terphenyl	92-94-4	0.085	U	0.085	0.27		1
GC Petroleum Hydrocarbons	SW-846 8015B modified		mg/l		mg/l	mg/l	mg/l	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.61		1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.61		1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.61		1
10365	EFH (C30 - C40)	n.a.	0.10	U	0.10	0.61		1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.61		1
Metals	SW-846 6010B		mg/l		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801	U	0.0801	0.200		1
08014	Boron	7440-42-8	0.0088	J	0.0022	0.0500		1
01750	Calcium	7440-70-2	0.0705	U	0.0705	0.200		1
01754	Iron	7439-89-6	0.0141	U	0.0141	0.200		1
01756	Lithium	7439-93-2	0.0076	U	0.0076	0.0200		1
01757	Magnesium	7439-95-4	0.0067	U	0.0067	0.100		1
07058	Manganese	7439-96-5	0.00044	U	0.00044	0.0050		1
10143	Phosphorus	7723-14-0	0.0055	J	0.0047	0.100		1
01762	Potassium	7440-09-7	0.0874	U	0.0874	0.500		1
01767	Sodium	7440-23-5	0.0647	U	0.0647	1.00		1
08068	Strontium	7440-24-6	0.00056	J	0.00022	0.0050		1
07069	Tin	7440-31-5	0.0043	U	0.0043	0.0200		1
07070	Titanium	7440-32-6	0.00063	J	0.00046	0.0100		1
10144	Zirconium	7440-67-7	0.0042	U	0.0042	0.0500		1
	SW-846 6020		mg/l		mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042	U	0.00042	0.0010		1
06025	Arsenic	7440-38-2	0.00095	U	0.00095	0.0020		1
06026	Barium	7440-39-3	0.00069	U	0.00069	0.0020		1
06027	Beryllium	7440-41-7	0.00013	U	0.00013	0.00050		1
06028	Cadmium	7440-43-9	0.00020	U	0.00020	0.00050		1
06031	Chromium	7440-47-3	0.00060	U	0.00060	0.0020		1
06032	Cobalt	7440-48-4	0.00010	U	0.00010	0.00050		1
06033	Copper	7440-50-8	0.00038	U	0.00038	0.0020		1
06035	Lead	7439-92-1	0.00012	J	0.000080	0.0010		1
06038	Molybdenum	7439-98-7	0.00025	U	0.00025	0.00050		1
06039	Nickel	7440-02-0	0.00050	U	0.00050	0.0020		1
06041	Selenium	7782-49-2	0.00027	U	0.00027	0.0020		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 09:41

Suite 210

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/l	mg/l	mg/l	mg/l	
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050		1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050		1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050		1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150		1
		SW-846 7470A	mg/l	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000026 U	0.000026	0.00020		1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10		1
00368	11b Anions by 300.0 - Nitrate	14797-55-8	0.050 U	0.050	0.10		1
		EPA 314.0	ug/l	ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0		1
		SW-846 7199	ug/l	ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0		1
		SW-846 9012B	mg/l	mg/l	mg/l	mg/l	
08255	16b Cyanide by 9012B	57-12-5	0.0050 U	0.0050	0.010		1
		SW-846 9040B	Std. Units	Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.5	0.010	0.010		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
10904	1b Volatile Organics EPA8260B	SW-846 8260B	1	Y112992AA	10/26/2011 12:55	Nicholas R Rossi	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E112972AA	10/24/2011 19:59	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E112972AA	10/24/2011 19:59	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y112992AA	10/26/2011 12:55	Nicholas R Rossi	1
10962	21b NDMA by 1625C	EPA 1625C	1	11297WAC026	11/02/2011 19:32	Matthew S Woods	1
04678	5b Semivolatiles by 8270C	SW-846 8270C	1	11297WAI026	10/26/2011 19:35	Holly Berry	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11297WAE026	10/25/2011 10:39	Joseph M Gambler	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00813	BNA Water Extraction	SW-846 3510C	1	11297WAI026	10/25/2011 09:00	Cynthia J Salvatori	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11297WAE026	10/24/2011 17:00	JoElla L Rice	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11297WAC026	10/24/2011 14:20	Wanda F Oswald	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11294B20A	10/24/2011 14:29	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11294B20A	10/24/2011 14:29	Catherine J Schwarz	1
10131	15b Energetics by 8330A	SW-846 8330A	1	112930023A	10/27/2011 11:31	Michele D Hamilton	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	112930018A	10/21/2011 19:35	James H Place	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	112980001A	11/01/2011 03:57	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	112980001A	10/25/2011 16:55	JoElla L Rice	1
01013	Formaldehyde Extraction	SW-846 8315A	1	112930018A	10/21/2011 09:15	Denise L Trimby	1
11122	Energetics Extraction	SW-846 8330	1	112930023A	10/21/2011 09:30	Kerrie A Freeburn	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	112930031A	10/21/2011 22:04	Elizabeth J Marin	1
08278	19b Glycols by 8015B	SW-846 8015B modified	1	112970039A	10/24/2011 23:22	Tyler O Griffin	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	112970009A	11/02/2011 11:46	Robert Brown	1
10365	9b TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112940018A	10/25/2011 14:01	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	112940018A	10/22/2011 10:50	Denise L Trimby	1
10304	Terphenyls water prep	SW-846 3510C	1	112970009A	10/24/2011 00:00	Bronson L Cole	1
01743	Aluminum	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
08014	Boron	SW-846 6010B	1	112991848003	11/01/2011 10:45	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
01754	Iron	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
01756	Lithium	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
01757	Magnesium	SW-846 6010B	1	112991848003	11/01/2011 10:45	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
10143	Phosphorus	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
01762	Potassium	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
01767	Sodium	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
08068	Strontium	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
07069	Tin	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
07070	Titanium	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
10144	Zirconium	SW-846 6010B	1	112991848003	10/28/2011 18:35	John P Hook	1
06024	Antimony	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06026	Barium	SW-846 6020	1	112996050005D	11/01/2011 06:29	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06033	Copper	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06035	Lead	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	112996050005C	11/01/2011 06:29	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	112996050005B	11/01/2011 06:29	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 9 of 9

Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443499
LLI Group # 1272257
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/20/2011 09:15

Suite 210

Reported: 11/18/2011 09:41

Chantilly VA 20151

E7210 SDG#: DE272-10EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06042	Silver	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	112996050005A	11/01/2011 06:29	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	112945713004	10/25/2011 12:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	112991848003	10/27/2011 09:19	Denise K Conners	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	112996050005	10/27/2011 09:17	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	112945713004	10/21/2011 16:31	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11293196903C	10/21/2011 14:40	Ashley M Adams	1
00368	11b Anions by 300.0 - Nitrate	EPA 300.0	1	11293196903C	10/21/2011 14:40	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	3	11293281101A	11/15/2011 10:56	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11293281401A	10/20/2011 10:46	Elyse P Brunstetter	1
08255	16b Cyanide by 9012B	SW-846 9012B	1	11300117101B	10/28/2011 08:32	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012B	1	11300117101B	10/27/2011 10:15	Nancy J Shoop	1
00200	17b pH by 9040B	SW-846 9040B	1	11294020001A	10/21/2011 20:30	Luz M Groff	1

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: B112981AA Sample number(s): 6443491-6443492									
Acetone	6.7 U	6.7	8.0	ug/kg	111	111	32-209	0	30
Benzene	0.10 U	0.10	4.0	ug/kg	111	106	80-120	5	30
Bromobenzene	0.13 U	0.13	4.0	ug/kg	101	97	79-120	4	30
Bromochloromethane	0.33 U	0.33	4.0	ug/kg	107	103	79-124	5	30
Bromodichloromethane	0.08 U	0.08	4.0	ug/kg	101	96	78-120	5	30
Bromoform	0.40 U	0.40	4.0	ug/kg	99	97	70-120	2	30
Bromomethane	0.25 U	0.25	4.0	ug/kg	91	86	32-162	6	30
2-Butanone	1.2 U	1.2	8.0	ug/kg	104	105	46-153	1	30
n-Butylbenzene	0.12 U	0.12	4.0	ug/kg	106	103	72-120	4	30
sec-Butylbenzene	0.06 U	0.06	4.0	ug/kg	107	102	75-120	5	30
tert-Butylbenzene	0.16 U	0.16	4.0	ug/kg	105	101	75-120	4	30
Carbon Tetrachloride	0.14 U	0.14	4.0	ug/kg	110	105	69-122	5	30
Chlorobenzene	0.11 U	0.11	4.0	ug/kg	107	102	80-120	5	30
Chloroethane	0.13 U	0.13	4.0	ug/kg	86	81	37-154	6	30
2-Chloroethyl Vinyl Ether	0.30 U	0.30	4.0	ug/kg	102	102	43-146	0	30
Chloroform	0.22 J	0.12	4.0	ug/kg	106	102	80-120	4	30
Chloromethane	0.33 U	0.33	4.0	ug/kg	101	103	54-132	2	30
2-Chlorotoluene	0.14 U	0.14	4.0	ug/kg	103	99	78-120	4	30
4-Chlorotoluene	0.14 U	0.14	4.0	ug/kg	104	102	79-120	2	30
Chlorotrifluoroethene	0.50 U	0.50	5.0	ug/kg	122	112	22-131	9	30
1,2-Dibromo-3-chloropropane	0.70 U	0.70	4.0	ug/kg	93	93	58-120	0	30
Dibromochloromethane	0.20 U	0.20	4.0	ug/kg	101	97	77-120	4	30
1,2-Dibromoethane	0.17 U	0.17	4.0	ug/kg	103	101	80-120	2	30
Dibromomethane	0.24 U	0.24	4.0	ug/kg	105	99	80-120	6	30
1,2-Dichlorobenzene	0.09 U	0.09	4.0	ug/kg	103	100	79-120	4	30
1,3-Dichlorobenzene	0.12 U	0.12	4.0	ug/kg	102	97	78-120	5	30
1,4-Dichlorobenzene	0.16 U	0.16	4.0	ug/kg	102	98	79-120	4	30
Dichlorodifluoromethane	0.12 U	0.12	4.0	ug/kg	114	106	20-120	7	30
1,1-Dichloroethane	0.10 U	0.10	4.0	ug/kg	110	105	80-120	5	30
1,2-Dichloroethane	0.15 U	0.15	4.0	ug/kg	105	101	71-129	4	30
1,1-Dichloroethene	0.39 U	0.39	4.0	ug/kg	126*	119	73-123	6	30
cis-1,2-Dichloroethene	0.19 U	0.19	4.0	ug/kg	110	104	80-120	6	30
trans-1,2-Dichloroethene	0.12 U	0.12	4.0	ug/kg	117	111	79-120	6	30
1,2-Dichloropropane	0.17 U	0.17	4.0	ug/kg	107	104	80-120	3	30
1,3-Dichloropropane	0.08 U	0.08	4.0	ug/kg	104	101	80-120	2	30
2,2-Dichloropropane	0.17 U	0.17	4.0	ug/kg	110	104	72-123	5	30
1,1-Dichloropropene	0.13 U	0.13	4.0	ug/kg	113	108	77-120	5	30
cis-1,3-Dichloropropene	0.16 U	0.16	4.0	ug/kg	102	99	80-120	3	30
trans-1,3-Dichloropropene	0.17 U	0.17	4.0	ug/kg	99	97	77-120	3	30
Ethylbenzene	0.06 U	0.06	4.0	ug/kg	108	104	80-120	4	30
Freon 113	0.11 U	0.11	4.0	ug/kg	134*	126	61-126	6	30
Freon 133a	0.50 U	0.50	5.0	ug/kg	129*	123*	78-120	5	30
Hexachlorobutadiene	0.14 U	0.14	4.0	ug/kg	107	104	57-120	4	30
2-Hexanone	1.6 U	1.6	8.0	ug/kg	105	107	45-155	2	30
Isopropylbenzene	0.06 U	0.06	4.0	ug/kg	110	105	76-120	5	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
p-Isopropyltoluene	0.11 U	0.11	4.0	ug/kg	107	102	75-120	5	30
Methyl Tertiary Butyl Ether	0.21 U	0.21	4.0	ug/kg	108	106	74-121	2	30
4-Methyl-2-pentanone	0.39 U	0.39	8.0	ug/kg	111	113	61-134	2	30
Methylene Chloride	0.76 J	0.24	4.0	ug/kg	111	106	76-124	5	30
n-Propylbenzene	0.07 U	0.07	4.0	ug/kg	106	102	77-120	4	30
Styrene	0.10 U	0.10	4.0	ug/kg	108	104	76-120	4	30
1,1,1,2-Tetrachloroethane	0.11 U	0.11	4.0	ug/kg	104	99	80-120	6	30
1,1,2,2-Tetrachloroethane	0.23 U	0.23	4.0	ug/kg	94	92	71-123	2	30
Tetrachloroethene	0.20 U	0.20	4.0	ug/kg	117	112	77-120	5	30
Toluene	0.08 U	0.08	4.0	ug/kg	108	102	80-120	5	30
1,2,3-Trichlorobenzene	0.14 U	0.14	4.0	ug/kg	100	97	64-120	4	30
1,2,4-Trichlorobenzene	0.18 U	0.18	4.0	ug/kg	101	97	68-120	3	30
1,1,1-Trichloroethane	0.20 U	0.20	4.0	ug/kg	104	99	71-125	5	30
1,1,2-Trichloroethane	0.27 U	0.27	4.0	ug/kg	105	101	80-120	5	30
Trichloroethene	0.15 U	0.15	4.0	ug/kg	109	104	80-120	5	30
Trichlorofluoromethane	0.29 U	0.29	4.0	ug/kg	110	103	58-133	6	30
1,2,3-Trichloropropane	0.33 U	0.33	4.0	ug/kg	95	95	71-123	0	30
1,2,4-Trimethylbenzene	0.40 U	0.40	4.0	ug/kg	104	100	79-120	4	30
1,3,5-Trimethylbenzene	0.10 U	0.10	4.0	ug/kg	105	101	78-120	4	30
Vinyl Chloride	0.20 U	0.20	4.0	ug/kg	110	105	53-120	5	30
m+p-Xylene	0.17 U	0.17	4.0	ug/kg	110	105	80-120	5	30
o-Xylene	0.17 U	0.17	4.0	ug/kg	106	104	80-120	3	30
Batch number: E112972AA	Sample number(s): 6443498-6443499								
1,4-Dioxane	0.5 U	0.5	2.0	ug/l	112		80-123		
Batch number: E112981AA	Sample number(s): 6443491-6443492								
1,4-Dioxane	5.0 U	5.0	15	ug/kg	94	90	70-130	4	30
Batch number: Y112992AA	Sample number(s): 6443498-6443499								
Acetone	6 U	6.	20	ug/l	83	64	49-234	26	30
Benzene	0.5 U	0.5	5	ug/l	93	92	79-120	1	30
Bromobenzene	1 U	1.	5	ug/l	88	95	80-120	7	30
Bromochloromethane	1 U	1.	5	ug/l	95	95	80-120	1	30
Bromodichloromethane	1 U	1.	5	ug/l	97	97	80-120	0	30
Bromoform	1 U	1.	5	ug/l	99	95	61-120	4	30
Bromomethane	1 U	1.	5	ug/l	101	106	44-120	5	30
2-Butanone	3 U	3.	10	ug/l	94	78	66-151	18	30
n-Butylbenzene	1 U	1.	5	ug/l	89	98	74-120	9	30
sec-Butylbenzene	1 U	1.	5	ug/l	91	100	78-120	9	30
tert-Butylbenzene	1 U	1.	5	ug/l	86	93	80-120	8	30
Carbon Tetrachloride	1 U	1.	5	ug/l	102	103	75-123	1	30
Chlorobenzene	0.8 U	0.8	5	ug/l	94	95	80-120	1	30
Chloroethane	1 U	1.	5	ug/l	104	111	49-129	7	30
2-Chloroethyl Vinyl Ether	2 U	2.	10	ug/l	107	106	56-129	0	30
Chloroform	0.8 U	0.8	5	ug/l	100	97	77-122	3	30
Chloromethane	1 U	1.	5	ug/l	101	112	60-129	11	30
2-Chlorotoluene	1 U	1.	5	ug/l	89	95	80-120	7	30
4-Chlorotoluene	1 U	1.	5	ug/l	89	96	80-120	7	30
Chlorotrifluoroethene	2 U	2.	5	ug/l	87	86	38-136	1	30
1,2-Dibromo-3-chloropropane	2 U	2.	5	ug/l	92	97	56-126	5	30
Dibromochloromethane	1 U	1.	5	ug/l	98	96	80-120	1	30
1,2-Dibromoethane	1 U	1.	5	ug/l	95	93	80-120	2	30
Dibromomethane	1 U	1.	5	ug/l	98	95	80-120	3	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	90	95	80-120	6	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	90	95	80-120	6	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	91	96	80-120	5	30
Dichlorodifluoromethane	2 U	2.	5	ug/l	89	93	47-120	5	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloroethane	1 U	1.	5	ug/l	97	96	79-120	1	30
1,2-Dichloroethane	1 U	1.	5	ug/l	105	102	70-130	2	30
1,1-Dichloroethene	0.8 U	0.8	5	ug/l	92	98	74-123	6	30
cis-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	95	91	80-120	4	30
trans-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	92	90	80-120	2	30
1,2-Dichloropropane	1 U	1.	5	ug/l	95	94	78-120	0	30
1,3-Dichloropropane	1 U	1.	5	ug/l	97	96	80-120	1	30
2,2-Dichloropropane	1 U	1.	5	ug/l	101	102	77-124	1	30
1,1-Dichloropropene	1 U	1.	5	ug/l	95	95	80-120	0	30
cis-1,3-Dichloropropene	1 U	1.	5	ug/l	94	95	80-120	1	30
trans-1,3-Dichloropropene	1 U	1.	5	ug/l	96	96	79-120	0	30
Ethylbenzene	0.8 U	0.8	5	ug/l	94	94	79-120	0	30
Freon 113	2 U	2.	10	ug/l	95	100	69-128	6	30
Freon 133a	2 U	2.	5	ug/l	91	93	77-120	2	30
Hexachlorobutadiene	2 U	2.	5	ug/l	75	86	58-120	14	30
2-Hexanone	3 U	3.	10	ug/l	99	94	65-136	5	30
Isopropylbenzene	1 U	1.	5	ug/l	95	96	77-120	1	30
p-Isopropyltoluene	1 U	1.	5	ug/l	92	101	80-120	9	30
Methyl Tertiary Butyl Ether	0.5 U	0.5	5	ug/l	96	94	76-120	2	30
4-Methyl-2-pentanone	3 U	3.	10	ug/l	94	91	70-121	2	30
Methylene Chloride	2 U	2.	5	ug/l	96	93	80-120	3	30
n-Propylbenzene	1 U	1.	5	ug/l	91	98	80-120	8	30
Styrene	1 U	1.	5	ug/l	94	93	80-120	1	30
1,1,1,2-Tetrachloroethane	1 U	1.	5	ug/l	97	96	80-120	1	30
1,1,2,2-Tetrachloroethane	1 U	1.	5	ug/l	86	90	71-120	4	30
Tetrachloroethene	0.8 U	0.8	5	ug/l	98	102	80-121	3	30
Toluene	0.7 U	0.7	5	ug/l	91	92	79-120	1	30
1,2,3-Trichlorobenzene	1 U	1.	5	ug/l	76	97	65-120	24	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	80	93	67-120	15	30
1,1,1-Trichloroethane	0.8 U	0.8	5	ug/l	87	89	75-127	2	30
1,1,2-Trichloroethane	0.8 U	0.8	5	ug/l	95	93	80-120	2	30
Trichloroethene	1 U	1.	5	ug/l	96	97	80-120	1	30
Trichlorofluoromethane	2 U	2.	5	ug/l	99	102	64-129	3	30
1,2,3-Trichloropropane	1 U	1.	5	ug/l	92	100	80-120	8	30
1,2,4-Trimethylbenzene	1 U	1.	5	ug/l	91	100	74-120	9	30
1,3,5-Trimethylbenzene	1 U	1.	5	ug/l	92	100	75-120	8	30
Vinyl Chloride	1 U	1.	5	ug/l	96	101	65-125	5	30
m+p-Xylene	0.8 U	0.8	5	ug/l	94	94	80-120	0	30
o-Xylene	0.8 U	0.8	5	ug/l	92	91	80-120	0	30

Batch number: 11295SLA026

Sample number(s): 6443490-6443494

Aniline	170 U	170.	500	ug/kg	63	20-115
Benzidine	1,200 U	1,200.	3,300	ug/kg	43	15-121
Benzoic acid	170 U	170.	500	ug/kg	85	62-113
Benzyl alcohol	170 U	170.	500	ug/kg	93	68-111
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	95	73-114
Carbazole	17 U	17.	170	ug/kg	101	77-113
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	100	74-119
4-Chloroaniline	67 U	67.	170	ug/kg	42	10-110
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	92	70-118
bis(2-Chloroethoxy) ether	17 U	17.	170	ug/kg	87	70-104
bis(2-Chloroisopropyl) ether	17 U	17.	170	ug/kg	85	62-115
2-Chloronaphthalene	17 U	17.	170	ug/kg	71	49-128
2-Chlorophenol	17 U	17.	170	ug/kg	92	72-112

*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

<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>
4-Chlorophenyl-phenylether	33	U	33.	170	ug/kg	96		74-115		
Dibenzofuran	17	U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	85		74-99		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	82		70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	83		74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	33		10-116		
	U									
2,4-Dichlorophenol	17	U	17.	170	ug/kg	97		75-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	95		72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	100		83-120		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	77		46-120		
	U									
2,4-Dinitrophenol	330		330.	1,000	ug/kg	76		18-133		
	U									
2,4-Dinitrotoluene	33	U	33.	170	ug/kg	105		73-115		
2,6-Dinitrotoluene	17	U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17	U	17.	170	ug/kg	96		71-125		
bis(2-Ethylhexyl)phthalate	17	U	17.	330	ug/kg	100		75-117		
Hexachlorobenzene	17	U	17.	170	ug/kg	96		73-119		
Hexachlorobutadiene	67	U	67.	170	ug/kg	87		65-117		
Hexachlorocyclopentadiene	170		170.	500	ug/kg	84		46-115		
	U									
Hexachloroethane	17	U	17.	170	ug/kg	82		61-109		
Isophorone	17	U	17.	170	ug/kg	92		69-110		
2-Methylphenol	33	U	33.	170	ug/kg	93		66-110		
4-Methylphenol	33	U	33.	170	ug/kg	93		66-117		
2-Nitroaniline	17	U	17.	170	ug/kg	102		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	96		62-109		
4-Nitroaniline	67	U	67.	170	ug/kg	81		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	91		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	89		76-111		
4-Nitrophenol	170		170.	500	ug/kg	100		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	85		63-107		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	100		67-141		
Pentachlorophenol	170		170.	500	ug/kg	100		51-117		
	U									
Phenol	17	U	17.	170	ug/kg	96		58-112		
Tetralin	170		170.	170	ug/kg					
	U									
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	90		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	101		78-111		
Batch number: 11295SLC026	Sample number(s): 6443490-6443494									
Acenaphthene	0.67	U	0.67	1.7	ug/kg	89		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	81		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	88		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	93		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	86		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	91		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	106		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	94		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	86		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	86		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	94		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	104		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	87		68-125		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dimethylphthalate	6.0 U	6.0	18	ug/kg	89		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	96		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	91		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	90		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	103		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	86		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	94		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	99		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	88		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	95		72-119		

Batch number: 11297WAC026 Sample number(s): 6443495-6443496, 6443499
N-Nitrosodimethylamine 0.887 J 0.500 1.00 ng/l 102 94 70-130 8 30

Batch number: 11297WAE026 Sample number(s): 6443499

Acenaphthene	0.010 U	0.010	0.050	ug/l	96	101	74-109	5	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	93	95	70-110	2	30
Anthracene	0.010 U	0.010	0.050	ug/l	97	99	66-111	2	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	101	102	72-114	1	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	93	93	60-127	0	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	98	99	58-151	1	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	112	113	57-131	1	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	99	99	59-130	0	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	22*	21*	40-138	4	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	60	61	56-148	2	30
Chrysene	0.010 U	0.010	0.050	ug/l	100	102	76-116	1	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	111	111	55-134	1	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	48	47	37-148	2	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	10*	10*	40-119	2	30
Bis(2-Ethylhexyl)phthalate	0.050 U	0.050	1.0	ug/l	106	103	57-154	3	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	97	98	75-116	2	30
Fluorene	0.010 U	0.010	0.050	ug/l	101	101	75-114	0	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	109	110	53-158	1	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	92	93	71-117	0	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	91	92	75-115	1	30
Naphthalene	0.030 U	0.030	0.050	ug/l	92	93	72-109	1	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	64	65	36-89	1	30
Di-n-octylphthalate	0.094 J	0.050	1.0	ug/l	96	96	57-145	1	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	94	96	76-111	2	30
Pyrene	0.010 U	0.010	0.050	ug/l	104	104	69-118	0	30

Batch number: 11297WAI026 Sample number(s): 6443499

Aniline	1 U	1.	5	ug/l	74	78	38-116	5	30
Benzidine	20 U	20.	60	ug/l	52	48	34-117	7	30
Benzoic acid	6 U	6.	15	ug/l	44	47	10-69	8	30
Benzyl alcohol	5 U	5.	15	ug/l	84	88	66-97	5	30
4-Bromophenyl-phenylether	1 U	1.	5	ug/l	95	101	75-115	5	30
2-butoxy-Ethanol	50 U	50.	50	ug/l					
Carbazole	1 U	1.	5	ug/l	99	101	75-120	2	30
4-Chloro-3-methylphenol	1 U	1.	5	ug/l	101	102	70-123	1	30
4-Chloroaniline	1 U	1.	5	ug/l	63	59	24-128	6	30
bis(2-Chloroethoxy)methane	1 U	1.	5	ug/l	99	102	74-124	3	30
bis(2-Chloroethyl) ether	1 U	1.	5	ug/l	88	95	77-108	8	30
bis(2-Chloroisopropyl) ether	1 U	1.	5	ug/l	84	93	62-127	10	30
2-Chloronaphthalene	2 U	2.	5	ug/l	72	75	54-132	3	30
2-Chlorophenol	1 U	1.	5	ug/l	95	100	71-114	5	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4-Chlorophenyl-phenylether	2 U	2.	5	ug/l	98	97	77-114	1	30
Dibenzofuran	1 U	1.	5	ug/l	95	95	75-117	0	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	81	86	55-118	7	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	78	85	61-111	8	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	79	84	53-119	6	30
3,3'-Dichlorobenzidine	2 U	2.	5	ug/l	58	57	37-117	1	30
2,4-Dichlorophenol	1 U	1.	5	ug/l	103	103	77-117	0	30
2,4-Dimethylphenol	3 U	3.	10	ug/l	98	97	72-110	1	30
3,5-Dimethylphenol	3 U	3.	10	ug/l	103	106	70-130	3	30
4,6-Dinitro-2-methylphenol	5 U	5.	15	ug/l	104	108	65-126	4	30
2,4-Dinitrophenol	10 U	10.	30	ug/l	100	102	52-131	2	30
2,4-Dinitrotoluene	1 U	1.	5	ug/l	102	101	76-119	1	30
2,6-Dinitrotoluene	1 U	1.	5	ug/l	100	102	76-118	2	30
1,2-Diphenylhydrazine	1 U	1.	5	ug/l	97	102	68-127	5	30
Hexachlorobenzene	1 U	1.	5	ug/l	97	100	75-119	4	30
Hexachlorobutadiene	1 U	1.	5	ug/l	85	87	57-124	3	30
Hexachlorocyclopentadiene	5 U	5.	15	ug/l	56	54	36-118	3	30
Hexachloroethane	1 U	1.	5	ug/l	74	80	52-113	8	30
Isophorone	1 U	1.	5	ug/l	96	100	74-117	4	30
2-Methylphenol	1 U	1.	5	ug/l	92	98	58-110	7	30
4-Methylphenol	2 U	2.	5	ug/l	85	91	49-108	7	30
2-Nitroaniline	1 U	1.	5	ug/l	100	102	75-120	2	30
3-Nitroaniline	1 U	1.	5	ug/l	99	98	74-113	1	30
4-Nitroaniline	1 U	1.	5	ug/l	86	86	59-100	0	30
Nitrobenzene	1 U	1.	5	ug/l	93	98	75-109	6	30
2-Nitrophenol	1 U	1.	5	ug/l	98	99	76-118	1	30
4-Nitrophenol	10 U	10.	30	ug/l	57	54	16-78	6	30
N-Nitroso-di-n-propylamine	1 U	1.	5	ug/l	86	93	69-110	8	30
N-Nitrosodiphenylamine	2 U	2.	5	ug/l	90	94	67-136	4	30
Pentachlorophenol	3 U	3.	15	ug/l	111*	112*	53-110	1	30
Phenol	1 U	1.	5	ug/l	51	61	21-67	18	30
2-phenoxy-Ethanol	50 U	50.	50	ug/l					
Tetralin	5 U	5.	5	ug/l					
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	88	91	71-112	3	30
2,4,5-Trichlorophenol	1 U	1.	5	ug/l	98	100	79-107	2	30
2,4,6-Trichlorophenol	1 U	1.	5	ug/l	102	101	76-120	0	30
Batch number: 11298SLB026	Sample number(s): 6443491-6443492, 6443497								
N-Nitrosodimethylamine	16.7 U	16.7	33.3	ng/kg	97		70-130		
Batch number: 11294B20A	Sample number(s): 6443499								
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	109	109	75-135	0	30
Batch number: 11297B20A	Sample number(s): 6443498								
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	109	109	75-135	0	30
Batch number: 11299A16A	Sample number(s): 6443491-6443494								
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	74	75	67-119	2	30
Batch number: 112930023A	Sample number(s): 6443499								
4-Amino-2,6-Dinitrotoluene	0.30 U	0.30	0.60	ug/l	110	100	80-120	10	30
2-Amino-4,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	98	95	80-120	3	30
2,6-Diamino-4-nitrotoluene	0.20 U	0.20	0.60	ug/l	93	93	50-122	0	30
2,4-Diamino-6-nitrotoluene	0.20 U	0.20	0.60	ug/l	93	93	50-122	0	30
1,3-Dinitrobenzene	0.20 U	0.20	0.60	ug/l	100	99	72-117	1	30
2,4-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	94	92	80-120	2	30
2,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	100	100	80-120	0	30
HMX	0.65 U	0.65	2.0	ug/l	91	87	65-125	4	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

<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>
Nitrobenzene	0.20 U	0.20	0.60	ug/l	94	91	75-121	3	30
Nitroglycerin	5.2 U	5.2	15	ug/l	96	92	80-120	4	30
2-Nitrotoluene	0.20 U	0.20	0.60	ug/l	94	91	74-120	3	30
3-Nitrotoluene	0.40 U	0.40	1.2	ug/l	98	96	69-107	2	30
4-Nitrotoluene	0.60 U	0.60	1.2	ug/l	92	90	80-120	2	30
PETN	6.0 U	6.0	18	ug/l	100	100	80-120	0	30
RDX	0.20 U	0.20	0.60	ug/l	89	86	70-125	3	30
Tetryl	0.40 U	0.40	0.60	ug/l	81	80	31-148	1	30
1,3,5-Trinitrobenzene	0.20 U	0.20	0.60	ug/l	87	100	53-129	14	30
2,4,6-Trinitrotoluene	0.20 U	0.20	0.60	ug/l	100	98	76-109	2	30
Batch number: 113020012A Sample number(s): 6443491-6443492									
4-Amino-2,6-Dinitrotoluene	60 U	60.	120	ug/kg	107		80-120		
2-Amino-4,6-Dinitrotoluene	40 U	40.	120	ug/kg	104		80-120		
2,6-Diamino-4-nitrotoluene	80 U	80.	240	ug/kg	93	88	54-134	5	30
2,4-Diamino-6-nitrotoluene	80 U	80.	240	ug/kg	92	88	54-134	5	30
1,3-Dinitrobenzene	40 U	40.	120	ug/kg	107		51-171		
2,4-Dinitrotoluene	40 U	40.	120	ug/kg	99		72-135		
2,6-Dinitrotoluene	40 U	40.	120	ug/kg	103		80-120		
HMX	100 U	100.	300	ug/kg	90		74-130		
Nitrobenzene	40 U	40.	120	ug/kg	96		80-120		
Nitroglycerin	800 U	800.	2,400	ug/kg	94		80-120		
2-Nitrotoluene	80 U	80.	120	ug/kg	98		78-128		
3-Nitrotoluene	100 U	100.	120	ug/kg	102		73-127		
4-Nitrotoluene	80 U	80.	120	ug/kg	95		80-120		
PETN	800 U	800.	2,400	ug/kg	104		80-120		
RDX	50 U	50.	120	ug/kg	106		75-131		
Tetryl	61 U	61.	120	ug/kg	114		70-168		
1,3,5-Trinitrobenzene	40 U	40.	120	ug/kg	107		77-137		
2,4,6-Trinitrotoluene	40 U	40.	120	ug/kg	108		80-120		
Batch number: 112930018A Sample number(s): 6443499									
20b Formaldehyde 8315A	10 U	10.	50	ug/l	92	96	69-130	4	30
Batch number: 112980025A Sample number(s): 6443491-6443492									
20a Formaldehyde 8315A	600 U	600.	1,500	ug/kg	113		80-126		
Batch number: 112970027A Sample number(s): 6443490-6443494									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	73	70	36-106	5	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	72		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	92		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: 112980001A Sample number(s): 6443499									
Aroclor 5432	0.10 U	0.10	0.50	ug/l					

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

<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>
Aroclor 5442	0.10 U	0.10	0.50	ug/l	64	62	35-84	3	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	90	90	51-128	0	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	100	104	56-135	4	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					
Batch number: 112930031A									
Ethanol	200 U	200.	1,000	ug/l	100		78-116		
Isopropanol	200 U	200.	1,000	ug/l	100		75-125		
Methanol	200 U	200.	1,000	ug/l	104		76-122		
Batch number: 112930033A									
Ethanol	100 U	100.	500	ug/kg	95		71-129		
Isopropanol	100 U	100.	500	ug/kg	97		75-125		
Methanol	100 U	100.	500	ug/kg	92		68-129		
Batch number: 112970039A									
Diethylene glycol	20 U	20.	200	mg/l	105		67-126		
Ethylene glycol	20 U	20.	200	mg/l	80		78-136		
Propylene glycol	20 U	20.	200	mg/l	80		65-132		
Batch number: 112980042A									
Diethylene glycol	5.0 U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	106		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 112940009A									
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	95		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	108		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	88		69-109		
Batch number: 112940018A									
EFH (C12-C14)	0.10 U	0.10	0.60	mg/l	114	100	63-121	13	30
EFH (C15-C20)	0.10 U	0.10	0.60	mg/l	108	103	72-124	5	30
EFH (C21-C30)	0.10 U	0.10	0.60	mg/l	85	85	64-123	0	30
EFH (C30 - C40)	0.10 U	0.10	0.60	mg/l	100	80	73-124	22	30
EFH (C8-C11)	0.10 U	0.10	0.60	mg/l	114*	100	43-107	13	30
Batch number: 112970009A									
m-Terphenyl	0.080 U	0.080	0.25	mg/l	106	106	61-108	0	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	106	106	75-125	0	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	108	106	63-110	2	20
Batch number: 113000011A									
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	96		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	99		75-128		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

<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>
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	99		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	84		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	88		49-107		
Batch number: 112945713004	Sample number(s): 6443499								
Mercury	0.000026 U	0.00002	0.00020	mg/l	101	96	80-120	5	20
Batch number: 112971026002A	Sample number(s): 6443490-6443494								
Antimony	0.0740 U	0.0740	0.200	mg/kg	122		40-227		
Arsenic	0.0800 U	0.0800	0.400	mg/kg	101		83-111		
Beryllium	0.0160 U	0.0160	0.100	mg/kg	101		84-112		
Cadmium	0.0440 U	0.0440	0.100	mg/kg	100		83-111		
Chromium	0.120 U	0.120	0.400	mg/kg	113		77-123		
Cobalt	0.0200 U	0.0200	0.100	mg/kg	105		85-114		
Copper	0.0800 U	0.0800	0.400	mg/kg	105		81-110		
Lead	0.0102 U	0.0102	0.200	mg/kg	101		84-112		
Nickel	0.100 U	0.100	0.400	mg/kg	99		81-110		
Silver	0.0142 U	0.0142	0.100	mg/kg	103		83-112		
Thallium	0.0300 U	0.0300	0.100	mg/kg	101		82-112		
Vanadium	0.0220 U	0.0220	0.100	mg/kg	108		76-110		
Zinc	0.560 U	0.560	3.00	mg/kg	99		82-110		
Batch number: 112971026002B	Sample number(s): 6443490-6443494								
Selenium	0.0580 U	0.0580	0.400	mg/kg	101		79-110		
Batch number: 112971026002C	Sample number(s): 6443490-6443494								
Molybdenum	0.0500 U	0.0500	0.100	mg/kg	104		80-110		
Batch number: 112971026002D	Sample number(s): 6443490-6443494								
Barium	0.106 U	0.106	0.400	mg/kg	102		83-110		
Batch number: 112975708004	Sample number(s): 6443490-6443494								
Aluminum	6.96 J	6.05	20.0	mg/kg	86		40-127		
Boron	0.360 U	0.360	5.00	mg/kg	99		83-110		
Calcium	4.01 J	2.50	20.0	mg/kg	98		81-110		
Iron	2.61 U	2.61	20.0	mg/kg	94		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	101		80-120		
Magnesium	1.57 J	0.440	10.0	mg/kg	89		63-116		
Manganese	0.0360 U	0.0360	0.500	mg/kg	106		85-116		
Phosphorus	0.992 J	0.350	10.0	mg/kg	105		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	98		71-110		
Sodium	5.95 U	5.95	100	mg/kg	101		76-110		
Strontium	0.0250 U	0.0250	0.500	mg/kg	102		84-110		
Tin	1.31 J	0.320	10.0	mg/kg	96		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	88		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	105		80-120		
Batch number: 112975711002	Sample number(s): 6443490-6443494								
Mercury	0.0069 U	0.0069	0.0984	mg/kg	115		83-119		
Batch number: 112991848003	Sample number(s): 6443499								
Aluminum	0.0801 U	0.0801	0.200	mg/l	104	102	90-112	2	20
Boron	0.0024 J	0.0022	0.0500	mg/l	96	97	89-110	1	20
Calcium	0.0765 J	0.0705	0.200	mg/l	100	100	90-110	0	20
Iron	0.0246 J	0.0141	0.200	mg/l	99	97	90-112	2	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	100	100	90-110	0	20
Magnesium	0.0171 J	0.0067	0.100	mg/l	101	101	90-110	1	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Manganese	0.00044 U	0.00044	0.0050	mg/l	104	103	90-110	2	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	99	99	90-110	1	20
Potassium	0.0874 U	0.0874	0.500	mg/l	95	96	85-115	1	20
Sodium	0.0647 U	0.0647	1.00	mg/l	99	99	87-114	0	20
Strontium	0.00028 J	0.00022	0.0050	mg/l	104	103	90-110	1	20
Tin	0.0043 U	0.0043	0.0200	mg/l	100	99	90-110	1	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	101	100	90-113	2	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	102	101	90-110	0	20

Batch number: 112996050005A	Sample number(s): 6443499								
Antimony	0.00042 U	0.00042	0.0010	mg/l	99	106	87-110	8	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	105	101	86-111	4	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	110	106	90-113	4	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	107	104	90-114	3	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	104	105	90-118	1	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	108	109	87-113	1	20
Copper	0.00038 U	0.00038	0.0020	mg/l	110	111	90-113	0	20
Lead	0.000080 U	0.00008	0.0010	mg/l	106	106	90-115	1	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	105	107	90-113	1	20
Silver	0.000098 U	0.00009	0.00050	mg/l	106	108	90-115	2	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	106	102	89-116	4	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	103	104	89-116	2	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	104	102	90-116	2	20
Batch number: 112996050005B	Sample number(s): 6443499								
Selenium	0.00027 U	0.00027	0.0020	mg/l	107	105	85-114	2	20
Batch number: 112996050005C	Sample number(s): 6443499								
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	102	104	89-115	2	20
Batch number: 112996050005D	Sample number(s): 6443499								
Barium	0.00069 U	0.00069	0.0020	mg/l	99	104	88-113	4	20
Batch number: 11293196903C	Sample number(s): 6443499								
11b Anions by 300.0 - Fluoride	0.080 U	0.080	0.10	mg/l	100	98	90-110	2	20
11b Anions by 300.0 - Nitrate	0.050 U	0.050	0.10	mg/l	100	100	90-110	0	20
Batch number: 11293281101A	Sample number(s): 6443499								
7b Perchlorate EPA 314.0	0.70 U	0.70	2.0	ug/l	90	96	85-115	7	20
Batch number: 11293281401A	Sample number(s): 6443499								
3b Cr VI by EPA 7199	5.0 U	5.0	10.0	ug/l	100	105	90-110	5	20
Batch number: 11298243201A	Sample number(s): 6443490-6443494								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	89		80-120		
Batch number: 11298621201A	Sample number(s): 6443490-6443494								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	99		85-115		
Batch number: 11300102201A	Sample number(s): 6443491-6443494								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	96		80-120		
Batch number: 11300117101B	Sample number(s): 6443499								
16b Cyanide by 9012B	0.0050 U	0.0050	0.010	mg/l	100	102	90-110	2	20
Batch number: 11300621201A	Sample number(s): 6443490-6443494								

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

<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>
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	110		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	100		90-110		
Batch number: 11294020001A	Sample number(s): 6443499				100	100	90-110	0	3
17b pH by 9040B									
Batch number: 11300039402B	Sample number(s): 6443490-6443494				100		95-105		
17a pH by 9045C									
Batch number: 11301162401A	Sample number(s): 6443490, 6443493-6443494, 6443497				99		80-120		
Moisture Content by 160.3									
Batch number: 11315162401A	Sample number(s): 6443491-6443492				100		80-120		
Moisture Content by 160.3									

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: E112972AA	Sample number(s): 6443498-6443499 UNSPK: P444104								
1,4-Dioxane	104	111	73-138	5	30				
Batch number: 11295SLA026	Sample number(s): 6443490-6443494 UNSPK: 6443490								
Aniline	65	74	18-116	13	30				
Benidine	0*	0*	35-141	0	30				
Benzoic acid	74	58	10-173	25	30				
Benzyl alcohol	90	94	67-115	5	30				
4-Bromophenyl-phenylether	92	96	67-129	4	30				
Carbazole	92	98	64-120	6	30				
4-Chloro-3-methylphenol	94	99	62-122	6	30				
4-Chloroaniline	55	70	13-107	24	30				
bis(2-Chloroethoxy)methane	93	98	75-104	6	30				
bis(2-Chloroethyl)ether	88	90	60-116	2	30				
bis(2-Chloroisopropyl)ether	84	86	55-142	2	30				
2-Chloronaphthalene	71	74	50-141	4	30				
2-Chlorophenol	94	97	73-121	3	30				
4-Chlorophenyl-phenylether	94	97	80-109	3	30				
Dibenzofuran	91	96	71-112	5	30				
1,2-Dichlorobenzene	85	87	66-108	2	30				
1,3-Dichlorobenzene	85	86	63-109	1	30				
1,4-Dichlorobenzene	85	86	58-108	2	30				
3,3'-Dichlorobenzidine	39	55	28-109	33*	30				
2,4-Dichlorophenol	97	100	66-123	3	30				
2,4-Dimethylphenol	93	98	68-118	5	30				
3,5-Dimethylphenol	98	104	71-127	5	30				
4,6-Dinitro-2-methylphenol	80	46	11-126	53*	30				
2,4-Dinitrophenol	65	20	20-143	104*	30				
2,4-Dinitrotoluene	98	100	56-129	2	30				
2,6-Dinitrotoluene	97	101	69-123	4	30				
1,2-Diphenylhydrazine	94	97	71-129	3	30				
bis(2-Ethylhexyl)phthalate	92	97	63-122	5	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

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
Hexachlorobenzene	91	96	77-114	5	30				
Hexachlorobutadiene	86	91	62-120	6	30				
Hexachlorocyclopentadiene	87	86	10-153	1	30				
Hexachloroethane	84	84	57-109	0	30				
Isophorone	89	94	73-102	5	30				
2-Methylphenol	95	97	75-111	2	30				
4-Methylphenol	93	95	59-123	1	30				
2-Nitroaniline	98	101	67-125	3	30				
3-Nitroaniline	93	100	59-122	7	30				
4-Nitroaniline	81	89	41-109	10	30				
Nitrobenzene	89	95	57-125	7	30				
2-Nitrophenol	90	91	56-127	2	30				
4-Nitrophenol	86	90	37-129	5	30				
N-Nitroso-di-n-propylamine	84	87	60-116	3	30				
N-Nitrosodiphenylamine	95	98	71-122	4	30				
Pentachlorophenol	96	87	28-127	9	30				
Phenol	96	100	58-126	4	30				
1,2,4-Trichlorobenzene	88	93	72-115	5	30				
2,4,5-Trichlorophenol	94	98	58-129	4	30				
2,4,6-Trichlorophenol	94	96	56-134	2	30				

Batch number: 11295SLC026 Sample number(s): 6443490-6443494 UNSPK: 6443491

Acenaphthene	92	89	63-105	3	30
Acenaphthylene	88	85	67-114	3	30
Anthracene	95	92	73-115	3	30
Benzo(a)anthracene	99	97	59-128	2	30
Benzo(a)pyrene	92	90	58-142	2	30
Benzo(b)fluoranthene	91	88	54-163	3	30
Benzo(g,h,i)perylene	102	98	33-141	4	30
Benzo(k)fluoranthene	93	92	57-153	1	30
Butylbenzylphthalate	100	96	57-173	5	30
Di-n-butylphthalate	94	94	65-148	0	30
Chrysene	98	97	67-123	1	30
Dibenz(a,h)anthracene	104	101	22-133	2	30
Diethylphthalate	91	88	70-136	4	30
Dimethylphthalate	94	91	74-118	3	30
Bis(2-Ethylhexyl)phthalate	124	119	39-167	4	30
Fluoranthene	95	94	51-149	1	30
Fluorene	91	88	66-122	3	30
Indeno(1,2,3-cd)pyrene	104	100	21-143	3	30
1-Methylnaphthalene	86	82	72-123	5	30
2-Methylnaphthalene	85	82	64-103	4	30
Naphthalene	87	83	61-102	5	30
N-Nitrosodimethylamine	96	89	48-113	8	30
Di-n-octylphthalate	89	89	40-192	0	30
Phenanthrene	91	88	62-122	3	30
Pyrene	95	88	51-131	7	30

Batch number: 11298SLB026 Sample number(s): 6443491-6443492,6443497 UNSPK: 6443491

N-Nitrosodimethylamine 97 91 70-130 6 30

Batch number: 113020012A Sample number(s): 6443491-6443492 UNSPK: 6443491

4-Amino-2,6-Dinitrotoluene 103 106 80-127 2 50

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
2-Amino-4,6-Dinitrotoluene	101	102	80-137	2	50				
1,3-Dinitrobenzene	104	105	38-166	1	50				
2,4-Dinitrotoluene	97	97	80-131	1	50				
2,6-Dinitrotoluene	99	100	80-127	1	50				
HMX	87	88	63-128	1	50				
Nitrobenzene	93	93	80-125	0	50				
Nitroglycerin	96	97	80-120	1	50				
2-Nitrotoluene	97	96	80-122	1	50				
3-Nitrotoluene	102	101	72-119	1	50				
4-Nitrotoluene	95	95	80-125	0	50				
PETN	103	104	80-121	1	50				
RDX	95	96	75-129	1	50				
Tetryl	105	109	55-174	3	50				
1,3,5-Trinitrobenzene	101	102	82-126	1	50				
2,4,6-Trinitrotoluene	104	105	82-130	1	50				
Batch number: 112980025A 20a Formaldehyde 8315A	Sample number(s): 6443491-6443492 UNSPK: 6443491 106 113 80-120 6 50								
Batch number: 112970027A PCB-1016 PCB-1260	Sample number(s): 6443490-6443494 UNSPK: 6443490 87 75 29-146 15 50 96 94 39-149 2 50								
Batch number: 112930031A Ethanol Isopropanol Methanol	Sample number(s): 6443499 UNSPK: P442022 92 88 62-145 4 20 103 99 73-131 4 20 82 70 52-159 11 20								
Batch number: 112930033A Ethanol Isopropanol Methanol	Sample number(s): 6443491-6443494 UNSPK: 6443491 91 95 48-130 4 20 95 90 12-149 5 20 83 90 43-138 8 20								
Batch number: 112970039A Diethylene glycol Ethylene glycol Propylene glycol	Sample number(s): 6443499 UNSPK: 6443499 105 114 83-130 9 20 70* 90 89-125 25* 20 75* 90* 91-128 18 20								
Batch number: 112980042A Diethylene glycol Ethylene glycol Propylene glycol	Sample number(s): 6443491-6443494 UNSPK: P437195 47* 48* 59-109 3 20 75 75 63-107 1 20 77 78 63-107 0 20								
Batch number: 112940009A m-Terphenyl o-Terphenyl p-Terphenyl	Sample number(s): 6443491-6443494 UNSPK: 6443492 96 98 75-125 2 20 105 105 75-125 0 20 88 90 75-125 3 20								
Batch number: 113000011A EFH (C12-C14) EFH (C15-C20) EFH (C21-C30)	Sample number(s): 6443491-6443494 UNSPK: P445463 119 283* 49-123 59* 20 494* 190* 49-123 55* 20 1022 728 (2) 49-123 20 20 (2)								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

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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: 11/18/11 at 09:41 AM

Group Number: 1272257

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	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH (C30 - C40)	292 (2)	353 (2)	49-123	5	20				
EFH (C8-C11)	90	90	49-123	0	20				
Batch number: 112971026002A	Sample number(s): 6443490-6443494 UNSPK: 6443490 BKG: 6443490								
Antimony	49*	57*	75-125	12	20	0.223	0.246	10 (1)	20
Arsenic	148*	161*	75-125	3	20	5.12	6.32	21*	20
Beryllium	122	120	75-125	0	20	0.654	0.770	16	20
Cadmium	119	124	75-125	4	20	0.109	0.133	20 (1)	20
Chromium	124	149*	75-125	5	20	33.9	38.3	12	20
Cobalt	120	122	75-125	3	20	6.38	7.69	19	20
Copper	127*	133*	75-125	3	20	6.25	7.47	18	20
Lead	146*	153*	75-125	3	20	5.13	6.33	21*	20
Nickel	135*	142*	75-125	3	20	11.6	13.9	18	20
Silver	117	120	75-125	3	20	0.0246 J	0.0251 J	2 (1)	20
Thallium	111	125	75-125	9	20	0.204	0.196	4 (1)	20
Vanadium	159 (2)	199 (2)	75-125	5	20	60.8	69.4	13	20
Zinc	162 (2)	186 (2)	75-125	4	20	46.6	54.5	16	20
Batch number: 112971026002B	Sample number(s): 6443490-6443494 UNSPK: 6443490 BKG: 6443490								
Selenium	105	102	75-125	2	20	0.141 J	0.135 J	5 (1)	20
Batch number: 112971026002C	Sample number(s): 6443490-6443494 UNSPK: 6443490 BKG: 6443490								
Molybdenum	112	117	75-125	6	20	0.495	0.518	5 (1)	20
Batch number: 112971026002D	Sample number(s): 6443490-6443494 UNSPK: 6443490 BKG: 6443490								
Barium	206 (2)	245 (2)	75-125	5	20	59.8	70.0	16	20
Batch number: 112975708004	Sample number(s): 6443490-6443494 UNSPK: P435690 BKG: P435690								
Aluminum	1436 (2)	1627 (2)	75-125	3	20	9,700	10,400	7	20
Boron	97	96	84-115	3	20	1.83 J	0.350 U	200* (1)	20
Calcium	173 (2)	213 (2)	75-125	3	20	4,060	3,830	6	20
Iron	2364 (2)	2747 (2)	75-125	2	20	16,600	17,900	8	20
Lithium	106	105	82-114	1	20	23.2	24.7	6	20
Magnesium	326 (2)	298 (2)	75-125	2	20	3,270	3,450	5	20
Manganese	115 (2)	122 (2)	75-125	1	20	260	258	1	20
Phosphorus	89	87	75-125	1	20	276	254	8	20
Potassium	141*	144*	75-125	1	20	1,890	2,000	6	20
Sodium	102	101	75-125	2	20	69.3 J	74.3 J	7 (1)	20
Strontium	101	101	75-115	1	20	17.9	15.5	15	20
Tin	87	87	80-110	1	20	2.85 J	2.77 J	3 (1)	20
Titanium	258 (2)	255 (2)	75-125	0	20	1,060	1,030	3	20
Zirconium	101	102	81-110	0	20	3.58 J	4.03 J	12 (1)	20
Batch number: 112975711002	Sample number(s): 6443490-6443494 UNSPK: 6443490 BKG: 6443490								
Mercury	100	96	65-135	4	20	0.0067 U	0.0067 U	0 (1)	20
Batch number: 11298243201A	Sample number(s): 6443490-6443494 UNSPK: P441963 BKG: P441963								
3a Cr VI by EPA 7199	96		75-125			0.46 J	0.65 J	36* (1)	20
Batch number: 11298621201A	Sample number(s): 6443490-6443494 UNSPK: 6443490 BKG: 6443490								
7a Perchlorate EPA 314.0	98		80-120			9.0 U	9.0 U	0 (1)	15

*- 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: 11/18/11 at 09:41 AM

Group Number: 1272257

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: 11300102201A 16a Cyanide by 9012B	Sample number(s): 6443491-6443494 102		75-125	UNSPK: 6443491		BKG: 6443491 0.18 U	0.18 U	0 (1)	20
Batch number: 11300621201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6443490-6443494 53*		80-120	UNSPK: P441963		BKG: P441963 1.9	2.4	22* (1)	20
11a Anions by 300.0 - Nitrate	99		80-120			3.1	2.5	22* (1)	20
Batch number: 11300039402B 17a pH by 9045C	Sample number(s): 6443490-6443494			BKG: 6443494		6.51	6.54	0	3
Batch number: 11301162401A Moisture Content by 160.3	Sample number(s): 6443490, 6443493-6443494, 6443497			BKG: 6443493		3.9	3.8	1	20
Batch number: 11315162401A Moisture Content by 160.3	Sample number(s): 6443491-6443492			BKG: P457197		0.50 U	0.50 U	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 1a Volatile Organics EPA 8260B

Batch number: B112981AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6443491	103	107	98	96
6443492	101	100	97	95
Blank	102	101	98	93
LCS	100	99	102	101
LCSD	101	100	102	101
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 14b 1,4-Dioxane by 8260B SIM

Batch number: E112972AA

Toluene-d8

6443498	100
6443499	100
Blank	100
LCS	100
MS	100
MSD	100

Limits: 80-120

Analysis Name: 14a 1,4-Dioxane by 8260B SIM

Batch number: E112981AA

Toluene-d8

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Surrogate Quality Control

6443491 93
6443492 94
Blank 94
LCS 94
LCSD 94

Limits: 70-130

Analysis Name: 1b Volatile Organics EPA8260B

Batch number: Y112992AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6443498	101	99	97	99
6443499	104	99	97	101
Blank	100	99	98	100
LCS	104	100	100	105
LCSD	100	98	99	102

Limits: 86-118 80-120 88-110 86-115

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11295SLA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6443490	86	90	84	80	85	97
6443491	94	97	80	88	89	100
6443492	73	77	65	70	72	78
6443493	94	97	84	85	89	98
6443494	90	91	90	83	86	102
Blank	86	90	84	86	88	99
LCS	89	90	91	85	88	101
MS	92	94	86	86	87	96
MSD	95	98	89	91	92	101

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11295SLC026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6443490	79	69	88
6443491	78	65	72
6443492	101	83	84
6443493	98	83	79
6443494	96	73	65
Blank	93	82	81
LCS	98	81	86
MS	100	83	84
MSD	97	80	80

Limits: 40-130 45-130 45-135

Analysis Name: 21b. NDMA in Water

Batch number: 11297WAC026

N-Nitrosodimethylamine-
d6

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Surrogate Quality Control

6443495 104
6443496 103
6443499 110
Blank 102
LCS 101
LCSD 106

Limits: 50-150

Analysis Name: 4b Select SVOC EPA 8270SIM
Batch number: 11297WAE026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6443499	101	87	94
Blank	102	88	93
LCS	104	89	93
LCSD	105	89	92

Limits: 40-130 45-130 45-135

Analysis Name: 5b Semivolatiles by EPA 8270C
Batch number: 11297WAI026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6443499	61	39	90	89	89	102
Blank	61	41	90	85	88	102
LCS	69	48	89	86	87	97
LCSD	71	51	91	91	89	99

Limits: 20-130 20-120 30-130 40-130 45-130 45-135

Analysis Name: 21a NDMA by 1625C
Batch number: 11298SLB026

N-Nitrosodimethylamine-d6

6443491 99
6443492 71
6443497 93
Blank 115
LCS 106
MS 92
MSD 56

Limits: 50-150

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11294B20A
Trifluorotoluene-F

6443499 88
Blank 86
LCS 117
LCSD 113

Limits: 63-135

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Surrogate Quality Control

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11297B20A
Trifluorotoluene-F

6443498	87
Blank	87
LCS	117
LCSD	113

Limits: 63-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11299A16A
Trifluorotoluene-F

6443491	92
6443492	88
6443493	122
6443494	93
Blank	96
LCS	89
LCSD	93

Limits: 61-122

Analysis Name: 20b Formaldehyde 8315A
Batch number: 112930018A
Butyraldehyde

6443499	91
Blank	86
LCS	94
LCSD	95

Limits: 45-145

Analysis Name: 15b Energetics by 8330A
Batch number: 112930023A
2-Nitro-m-xylene

6443499	85
Blank	91
LCS	91
LCSD	92

Limits: 50-134

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 112970027A
Tetrachloro-m-xylene Decachlorobiphenyl

6443490	71	79
6443491	81	88
6443492	81	93
6443493	90	97
6443494	85	90

*- 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: 11/18/11 at 09:41 AM

Group Number: 1272257

Surrogate Quality Control

Blank	83	99
LCS	81	98
LCSD	82	97
MS	80	97
MSD	79	95

Limits: 53-139 53-142

Analysis Name: 8b PCBs/PCTs by 8082

Batch number: 112980001A

Tetrachloro-m-xylene Decachlorobiphenyl

6443499	97	102
Blank	101	104
LCS	101	84
LCSD	99	79

Limits: 30-150 30-150

Analysis Name: 20a Formaldehyde 8315A

Batch number: 112980025A

Butyraldehyde

6443491	98
6443492	93
Blank	85
LCS	80
MS	82
MSD	89

Limits: 64-126

Analysis Name: 15a Energetics by 8330A

Batch number: 113020012A

2-Nitro-m-xylene

6443491	105
6443492	101
Blank	112
LCS	94
LCSD	93
MS	95
MSD	101

Limits: 80-146

Analysis Name: 18b Alcohols by 8015B

Batch number: 112930031A

Acetone

6443499	94
Blank	101
LCS	104
MS	108
MSD	103

Limits: 54-147

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Surrogate Quality Control

Analysis Name: 18a Alcohols by 8015B
Batch number: 112930033A
Acetone

6443491	82
6443492	82
6443493	85
6443494	82
Blank	96
LCS	92
MS	82
MSD	82

Limits: 42-138

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112940009A
n-Triacontane-d62

6443491	53
6443492	51
6443493	57
6443494	74
Blank	115
LCS	64
MS	57
MSD	54

Limits: 19-152

Analysis Name: 9b TPH by EPA 8015B Oil/Diesel
Batch number: 112940018A

	Chlorobenzene	Orthoterphenyl
6443499	85	84
Blank	106	
LCS	130	101
LCSD	94	98

Limits: 28-152 52-131

Analysis Name: 22b Terphenyls by 8015B
Batch number: 112970009A
n-Triacontane-d62

6443499	72
Blank	73
LCS	81
LCSD	76

Limits: 17-138

Analysis Name: 19b Glycols by 8015B
Batch number: 112970039A
Tetramethylene glycol

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 09:41 AM

Group Number: 1272257

Surrogate Quality Control

6443499 106
Blank 104
LCS 110
MS 110
MSD 114

Limits: 29-157

Analysis Name: 19a Glycols by 8015B
Batch number: 112980042A
Tetramethylene glycol

6443491 87
6443492 87
6443493 85
6443494 88
Blank 100
LCS 99
MS 88
MSD 87

Limits: 29-137

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 113000011A
Chlorobenzene Orthoterphenyl

6443491	84	88
6443492	90	91
6443493	85	87
6443494	88	89
Blank	83	87
LCS	80	90
MS	85	75
MSD	88	81

Limits: 37-125 47-145

*- Outside of specification

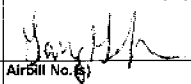
** - This limit was used in the evaluation of the final result for the blank

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acct# 13013 Cp# 1272257

sample# 6443490-99

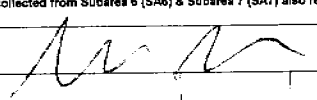
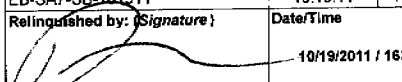
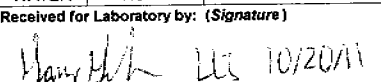
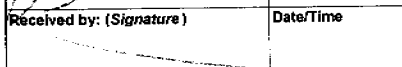
CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes		
NOTES: *Primary Analyses as indicated on sample labels *Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subaru 6 (SA6) & Subaru 7 (SA7) also report Tetralin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 60106/2008/471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCP EPA 9032	*Dioxin/Furan EPA 1613B	*Pesticides EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 8045C/9640B	Pesticide Confirmation by EPA 8850 (10%)	*VOCs EPA 8260B \$	*1,4-Dioxane EPA 8260SIM \$	*TPH-GRO EPA 8015B \$	*TPH-EFH EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*n-NOMA EPA 1625C	*Energetics EPA 8330A	*Cyanide EPA 8012B	*Terphenyls EPA 8015R		*Glycols EPA 8015B	*Alcohols EPA 8015B
		SL-016-SA5DS-SB-4.0-5.0	10.19.11	0942	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
		SL-143-SA7-SB-5.5	10.19.11	1005	SOIL	NONE	5-Encores									X	X	X											
		SL-143-SA7-SB-5.0-6.0	10.19.11	0945	SOIL	NONE	1-SS Sleeve			X	X																		
		SL-143-SA7-SB-5.0-6.0	10.19.11	0945	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	
		SL-143-SA7-SB-9.5	10.19.11	1045	SOIL	NONE	5-Encores									X	X	X											
		SL-143-SA7-SB-9.0-10.0	10.19.11	1050	SOIL	NONE	1-SS Sleeve			X	X																		
		SL-143-SA7-SB-9.0-10.0	10.19.11	1050	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X				X	X	X	X	X	X	X	X	X	X	
		SL-142-SA7-SB-2.5	10.19.11	1511	SOIL	NONE	2-Encores											X											
		SL-142-SA7-SB-2.0-3.0	10.19.11	1515	SOIL	NONE	1-SS Sleeve			X	X																		
		SL-142-SA7-SB-2.0-3.0	10.19.11	1515	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X				X					X	X	X	X		
		SL-142-SA7-SB-5.5	10.19.11	1520	SOIL	NONE	2-Encores											X											
		SL-142-SA7-SB-7.0-8.0	10.19.11	1545	SOIL	NONE	1-SS Sleeve			X	X																		
		SL-142-SA7-SB-7.0-8.0	10.19.11	1545	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X				X					X	X	X	X		
		EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	1-1 L Amber															X						HQ1 ASTM II WATER-HA crew	
		TB-101911	10.19.11	0800	WATER	NONE	1-1 L Amber															X							
		TB-101911	10.19.11	0800	SOIL	NONE	1-4 oz Jar															X							
		TB-101911	10.19.11	0800	WATER	NONE	4-40 mL Vials									X	X	X											
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)													Laboratory:												
		10/19/2011 / 1630		 Yanyan H. Li 10/20/11 0745													Lancaster Laboratories, Inc.												
Received by: (Signature)		Date/Time		AirBill No. (s)																									
				8767 9857 5176,5187,3531																									

acct #13013 Cp# 1372257

Sample # 6443490-99

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																											
Samplers Signatures: 																											
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8092	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrom EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8850 (10%)	TPH-GRO EPA 8015B \$	*TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**p-NDMA EPA 1625C	**Emeraldine EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8016B	**Glycols EPA 8015B	**Alcohols EPA 8016B	**Downal EPA 8270		
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	10-1 liter ambers		X	X	X	X					X			X	X		X			X			
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	1-500 mL poly		X				X	X	X														
EB-SA7-SB-101911	10.19.11	1430	WATER	HNO3	1-500 mL poly	X																					
EB-SA7-SB-101911	10.19.11	1430	WATER	NaOH	1-500 mL poly															X							
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	1-250 mL glass													X									
EB-SA7-SB-101911	10.19.11	1430	WATER	HCL	11-40 mL vials									X									X				
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	4-40 mL vials												X						X				
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)												Laboratory:											
		10/19/2011 / 1630														Lancaster Laboratories, Inc.											
Received by: (Signature)		Date/Time		Airbill No. (s)																							
				8767 9857 5176,5187,3531																							

Nicole Maljovec

From: Hartman, Pamela [HartmanPM@cdm.com]
Sent: Thursday, October 20, 2011 4:55 PM
To: Nicole Maljovec
Subject: RE: SSFL COC 10/19/11: SL-142@2.5 Question

Yes, please run all VOCs.

I'm sorry for the inconsistencies!!!!

From: Nicole Maljovec [nmaljovec@lancasterlabs.com]
Sent: Thursday, October 20, 2011 1:52 PM
To: Hartman, Pamela
Subject: SSFL COC 10/19/11: SL-142@2.5 Question

Hi Pam,
We have another question for you. The attached COC has 5 encores listed for SL-142 @2.5 and all of the VOC tests are marked off. The COC in the cooler has 2 encores listed and only GRO checked off. There are 5 encores in the silver pouch, so I'm assuming the e-COC was right and we should test for all VOC analyses. Do you concur?

Thanks!
Nicole

-----Original Message-----

From: Hartman, Pamela [mailto:HartmanPM@cdm.com]
Sent: Wednesday, October 19, 2011 7:47 PM
To: Bloisa, Peggy; Burgess, Todd; 'Laura Rainey'; SA Env Entry; TWallbom@dtsc.ca.gov; Zakowski, Cherie; Nicole Maljovec
Subject: SSFL COC 10/19/11

Subsurface sampling with two crews continued in SA7 and SA5DS today.
Please see attached COC.

Thanks,

Pam

Pamela Hartman
CDM
523 W 6th St #400
Los Angeles, CA 90014
Cell 714-900-0916
Direct 818-466-8007

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/20/2011

Group Number: 1272258

SDG: DX150

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-016-SA5DS-SB-4.0-5.0 Soil
SL-143-SA7-SB-5.0-6.0 Soil
SL-143-SA7-SB-9.0-10.0 Soil
SL-142-SA7-SB-2.0-3.0 Soil
SL-142-SA7-SB-7.0-8.0 Soil
EB-SA7-SB-101911 WaterLancaster Labs (LLI) #6443500
6443501
6443502
6443503
6443504
6443505

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

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Page 1 of 4

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443500
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5006 SDG#: DX150-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	8.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443500
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5006 SDG#: DX150-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0321 U	0.0321	1.08	1
11031	12378-PeCDD	40321-76-4	0.0435 JB	0.0276	5.42	1
11031	123478-HxCDD	39227-28-6	0.0397 JBQ	0.0237	5.42	1
11031	123678-HxCDD	57653-85-7	0.0801 JB	0.0252	5.42	1
11031	123789-HxCDD	19408-74-3	0.161 JBQ	0.0234	5.42	1
11031	1234678-HpCDD	35822-46-9	0.264 JB	0.0239	5.42	1
11031	OCDD	3268-87-9	0.552 JBQ	0.0415	10.8	1
11031	2378-TCDF	51207-31-9	0.0249 JQ	0.0244	1.08	1
11031	12378-PeCDF	57117-41-6	0.0355 JB	0.0131	5.42	1
11031	23478-PeCDF	57117-31-4	0.0479 JB	0.0143	5.42	1
11031	123478-HxCDF	70648-26-9	0.0316 J	0.0176	5.42	1
11031	123678-HxCDF	57117-44-9	0.0409 JBQ	0.0146	5.42	1
11031	123789-HxCDF	72918-21-9	0.183 JB	0.0203	5.42	1
11031	234678-HxCDF	60851-34-5	0.0493 JBQ	0.0152	5.42	1
11031	1234678-HpCDF	67562-39-4	0.145 JB	0.0122	5.42	1
11031	1234789-HpCDF	55673-89-7	0.0224 U	0.0224	5.42	1
11031	OCDF	39001-02-0	0.164 JBQ	0.0467	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	55	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	57	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443500
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5006 SDG#: DX150-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6443500
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:42

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5006 SDG#: DX150-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/29/2011 19:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401A	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

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Page 1 of 4

Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443501
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5007 SDG#: DX150-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443501
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5007 SDG#: DX150-07

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	0.0319 U	0.0319	1.06	1
11031	12378-PeCDD	40321-76-4	0.0776 JBQ	0.0274	5.30	1
11031	123478-HxCDD	39227-28-6	0.0481 JB	0.0209	5.30	1
11031	123678-HxCDD	57653-85-7	0.0925 JBQ	0.0216	5.30	1
11031	123789-HxCDD	19408-74-3	0.0778 JBQ	0.0210	5.30	1
11031	1234678-HpCDD	35822-46-9	0.709 JB	0.0251	5.30	1
11031	OCDD	3268-87-9	4.51 JB	0.0447	10.6	1
11031	2378-TCDF	51207-31-9	0.0429 JQ	0.0256	1.06	1
11031	12378-PeCDF	57117-41-6	0.103 JBQ	0.0152	5.30	1
11031	23478-PeCDF	57117-31-4	0.120 JB	0.0163	5.30	1
11031	123478-HxCDF	70648-26-9	0.129 JQ	0.0170	5.30	1
11031	123678-HxCDF	57117-44-9	0.0594 JBQ	0.0135	5.30	1
11031	123789-HxCDF	72918-21-9	0.0576 JBQ	0.0188	5.30	1
11031	234678-HxCDF	60851-34-5	0.0785 JBQ	0.0137	5.30	1
11031	1234678-HpCDF	67562-39-4	0.191 JB	0.0130	5.30	1
11031	1234789-HpCDF	55673-89-7	0.0688 JBQ	0.0245	5.30	1
11031	OCDF	39001-02-0	0.298 JBQ	0.0449	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	57	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443501
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

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X5007 SDG#: DX150-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Page 4 of 4

Sample Description: SL-143-SA7-SB-5.0-6.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-5.0-6.0

LLI Sample # SW 6443501
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 09:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5007 SDG#: DX150-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/29/2011 20:02	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11315162401A	11/11/2011 22:24	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443502
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5008 SDG#: DX150-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443502
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5008 SDG#: DX150-08

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	0.0635 JQ	0.0309	1.01	1
11031	12378-PeCDD	40321-76-4	0.150 JBQ	0.0236	5.05	1
11031	123478-HxCDD	39227-28-6	0.0456 JBQ	0.0211	5.05	1
11031	123678-HxCDD	57653-85-7	0.107 JBQ	0.0215	5.05	1
11031	123789-HxCDD	19408-74-3	0.104 JB	0.0196	5.05	1
11031	1234678-HpCDD	35822-46-9	0.354 JB	0.0222	5.05	1
11031	OCDD	3268-87-9	1.37 JBQ	0.0294	10.1	1
11031	2378-TCDF	51207-31-9	0.100 JQ	0.0217	1.01	1
11031	12378-PeCDF	57117-41-6	0.159 JB	0.0123	5.05	1
11031	23478-PeCDF	57117-31-4	0.158 JBQ	0.0131	5.05	1
11031	123478-HxCDF	70648-26-9	0.0821 J	0.0171	5.05	1
11031	123678-HxCDF	57117-44-9	0.0777 JB	0.0137	5.05	1
11031	123789-HxCDF	72918-21-9	0.0508 JBQ	0.0174	5.05	1
11031	234678-HxCDF	60851-34-5	0.0847 JB	0.0143	5.05	1
11031	1234678-HpCDF	67562-39-4	0.217 JB	0.0110	5.05	1
11031	1234789-HpCDF	55673-89-7	0.0633 JBQ	0.0203	5.05	1
11031	OCDF	39001-02-0	0.304 JB	0.0433	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	54	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443502
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5008 SDG#: DX150-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-143-SA7-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-143-SA7-SB-9.0-10.0

LLI Sample # SW 6443502
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 10:50

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5008 SDG#: DX150-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 00:02	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11315162401A	11/11/2011 22:24	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443503
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5009 SDG#: DX150-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	3.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443503
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/14/2011 09:30

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Chantilly VA 20151

X5009 SDG#: DX150-09

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	0.0615 J	0.0271	1.02	1
11031	12378-PeCDD	40321-76-4	0.135 JB	0.0271	5.10	1
11031	123478-HxCDD	39227-28-6	0.0851 JB	0.0249	5.10	1
11031	123678-HxCDD	57653-85-7	0.182 JB	0.0241	5.10	1
11031	123789-HxCDD	19408-74-3	0.221 JB	0.0250	5.10	1
11031	1234678-HpCDD	35822-46-9	3.16 JB	0.0300	5.10	1
11031	OCDD	3268-87-9	25.3 B	0.0407	10.2	1
11031	2378-TCDF	51207-31-9	0.155 J	0.0362	1.02	1
11031	12378-PeCDF	57117-41-6	0.137 JB	0.0200	5.10	1
11031	23478-PeCDF	57117-31-4	0.205 JB	0.0207	5.10	1
11031	123478-HxCDF	70648-26-9	0.411 J	0.0241	5.10	1
11031	123678-HxCDF	57117-44-9	0.0818 JB	0.0190	5.10	1
11031	123789-HxCDF	72918-21-9	0.167 JB	0.0246	5.10	1
11031	234678-HxCDF	60851-34-5	0.0887 JB	0.0201	5.10	1
11031	1234678-HpCDF	67562-39-4	0.633 JB	0.0126	5.10	1
11031	1234789-HpCDF	55673-89-7	0.0417 JB	0.0237	5.10	1
11031	OCDF	39001-02-0	1.31 JB	0.0395	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	87	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	57	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443503
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5009 SDG#: DX150-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-142-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-2.0-3.0

LLI Sample # SW 6443503
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:15

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5009 SDG#: DX150-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 17:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401A	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

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Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443504
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/14/2011 09:30

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X5010 SDG#: DX150-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443504
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/14/2011 09:30

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X5010 SDG#: DX150-10

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	0.0275 U	0.0275	1.04	1
11031	12378-PeCDD	40321-76-4	0.0919 JB	0.0301	5.20	1
11031	123478-HxCDD	39227-28-6	0.188 JB	0.0297	5.20	1
11031	123678-HxCDD	57653-85-7	0.539 JB	0.0304	5.20	1
11031	123789-HxCDD	19408-74-3	0.415 JB	0.0298	5.20	1
11031	1234678-HpCDD	35822-46-9	11.2 B	0.0405	5.20	1
11031	OCDD	3268-87-9	86.8 B	0.0592	10.4	1
11031	2378-TCDF	51207-31-9	0.336 JQ	0.0571	1.04	1
11031	12378-PeCDF	57117-41-6	0.225 JB	0.0278	5.20	1
11031	23478-PeCDF	57117-31-4	0.0300 U	0.0300	5.20	1
11031	123478-HxCDF	70648-26-9	0.437 J	0.0303	5.20	1
11031	123678-HxCDF	57117-44-9	0.177 JB	0.0248	5.20	1
11031	123789-HxCDF	72918-21-9	0.126 JB	0.0302	5.20	1
11031	234678-HxCDF	60851-34-5	0.194 JB	0.0229	5.20	1
11031	1234678-HpCDF	67562-39-4	1.45 JB	0.0172	5.20	1
11031	1234789-HpCDF	55673-89-7	0.147 JBQ	0.0305	5.20	1
11031	OCDF	39001-02-0	3.44 JB	0.0396	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443504
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/14/2011 09:30

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X5010 SDG#: DX150-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-142-SA7-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-142-SA7-SB-7.0-8.0

LLI Sample # SW 6443504
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 15:45

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/14/2011 09:30

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X5010 SDG#: DX150-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 01:55	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401A	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443505
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

14420 Albemarle Point Place

Reported: 11/14/2011 09:30

Suite 210

Chantilly VA 20151

X5011 SDG#: DX150-11EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	pg/l		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.449	U	0.449	2.12	1
10915	12378-PeCDD	40321-76-4	0.392	U	0.392	10.6	1
10915	123478-HxCDD	39227-28-6	0.328	U	0.328	10.6	1
10915	123678-HxCDD	57653-85-7	0.623	JBQ	0.327	10.6	1
10915	123789-HxCDD	19408-74-3	0.805	JBQ	0.319	10.6	1
10915	1234678-HpCDD	35822-46-9	3.05	JB	0.351	10.6	1
10915	OCDD	3268-87-9	6.70	JB	0.371	21.2	1
10915	2378-TCDF	51207-31-9	0.315	JBQ	0.266	2.12	1
10915	12378-PeCDF	57117-41-6	0.543	JBQ	0.217	10.6	1
10915	23478-PeCDF	57117-31-4	0.801	JBQ	0.196	10.6	1
10915	123478-HxCDF	70648-26-9	0.302	JBQ	0.192	10.6	1
10915	123678-HxCDF	57117-44-9	0.460	JBQ	0.179	10.6	1
10915	123789-HxCDF	72918-21-9	0.426	JBQ	0.186	10.6	1
10915	234678-HxCDF	60851-34-5	0.536	JBQ	0.171	10.6	1
10915	1234678-HpCDF	67562-39-4	2.50	JB	0.182	10.6	1
10915	1234789-HpCDF	55673-89-7	0.479	JBQ	0.214	10.6	1
10915	OCDF	39001-02-0	2.49	JBQ	0.505	21.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	55	25 - 181
13C12-123478-HxCDD	55	32 - 141
13C12-123678-HxCDD	57	28 - 130
13C12-123789-HxCDD	56	28 - 130
13C12-1234678-HpCDD	56	23 - 140
13C12-OCDD	54	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	57	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	53	26 - 123
13C12-234678-HxCDF	54	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	53	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

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Page 2 of 2

Sample Description: EB-SA7-SB-101911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-101911

LLI Sample # WW 6443505
LLI Group # 1272258
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/19/2011 14:30

CDM Federal Programs Corp.

Submitted: 10/20/2011 09:15

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Reported: 11/14/2011 09:30

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X5011 SDG#: DX150-11EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
S	Saturation of detection signal					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	11297002	10/26/2011 09:09	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	11297002	10/24/2011 09:45	Ginelle L Haines	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 09:30 AM

Group Number: 1272258

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11301162401A Moisture Content by 160.3	Sample number(s): 6443500,6443503-6443504				99		80-120		
Batch number: 11315162401A Moisture Content by 160.3	Sample number(s): 6443501-6443502				100		80-120		
<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11297002	Sample number(s): 6443505								
2378-TCDD	0.534 U	0.534	2.00	pg/l	108		67-158		
12378-PeCDD	0.463 U	0.463	10.0	pg/l	109		70-142		
123478-HxCDD	0.338 U	0.338	10.0	pg/l	102		70-164		
123678-HxCDD	0.372 J	0.333	10.0	pg/l	99		76-134		
123789-HxCDD	0.989 J	0.344	10.0	pg/l	107		64-162		
1234678-HpCDD	3.78 J	0.374	10.0	pg/l	105		70-140		
OCDD	6.96 J	0.424	20.0	pg/l	104		78-144		
2378-TCDF	0.339 J	0.324	2.00	pg/l	97		75-158		
12378-PeCDF	0.262 J	0.229	10.0	pg/l	102		80-134		
23478-PeCDF	0.327 J	0.200	10.0	pg/l	99		68-160		
123478-HxCDF	0.588 J	0.209	10.0	pg/l	103		72-134		
123678-HxCDF	0.410 J	0.208	10.0	pg/l	105		84-130		
123789-HxCDF	0.976 J	0.229	10.0	pg/l	102		78-130		
234678-HxCDF	0.342 J	0.198	10.0	pg/l	99		70-156		
1234678-HpCDF	1.54 J	0.203	10.0	pg/l	98		82-122		
1234789-HpCDF	0.445 J	0.233	10.0	pg/l	104		78-138		
OCDF	2.32 J	0.508	20.0	pg/l	103		63-170		
Batch number: 11300001	Sample number(s): 6443500-6443504								
2378-TCDD	0.0422 U	0.0422	1.00	ng/kg	107		67-158		
12378-PeCDD	0.0804 J	0.0346	5.00	ng/kg	105		70-142		
123478-HxCDD	0.0345 J	0.0262	5.00	ng/kg	97		70-164		
123678-HxCDD	0.0438 J	0.0267	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0427 J	0.0259	5.00	ng/kg	101		64-162		
1234678-HpCDD	0.295 J	0.0295	5.00	ng/kg	97		70-140		
OCDD	0.493 J	0.0380	10.0	ng/kg	96		78-144		
2378-TCDF	0.0353 U	0.0353	1.00	ng/kg	103		75-158		
12378-PeCDF	0.0458 J	0.0185	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0744 J	0.0187	5.00	ng/kg	96		68-160		
123478-HxCDF	0.0234 U	0.0234	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0512 J	0.0189	5.00	ng/kg	97		84-130		
123789-HxCDF	0.0857 J	0.0250	5.00	ng/kg	99		78-130		
234678-HxCDF	0.0555 J	0.0210	5.00	ng/kg	94		70-156		
1234678-HpCDF	0.128 J	0.0153	5.00	ng/kg	90		82-122		
1234789-HpCDF	0.0489 J	0.0291	5.00	ng/kg	96		78-138		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 09:30 AM

Group Number: 1272258

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
OCDF	0.188 J	0.0680	10.0	ng/kg	96		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11301162401A Moisture Content by 160.3	Sample number(s): 6443500, 6443503-6443504 BKG: P443493 3.9 3.8 1 20								
Batch number: 11315162401A Moisture Content by 160.3	Sample number(s): 6443501-6443502 BKG: P457197 0.50 U 0.50 U 0 (1) 20								
Batch number: 11300001	Sample number(s): 6443500-6443504 UNSPK: P437220								
2378-TCDD	103	109	67-158	2	25				
12378-PeCDD	101	102	70-142	3	25				
123478-HxCDD	99	96	70-164	6	25				
123678-HxCDD	92	93	76-134	3	25				
123789-HxCDD	101	101	64-162	3	25				
1234678-HpCDD	96	98	70-140	2	25				
OCDD	94	95	78-144	2	25				
2378-TCDF	98	94	75-158	8	25				
12378-PeCDF	99	100	80-134	2	25				
23478-PeCDF	95	94	68-160	5	25				
123478-HxCDF	97	96	72-134	4	25				
123678-HxCDF	96	97	84-130	3	25				
123789-HxCDF	99	99	78-130	4	25				
234678-HxCDF	95	96	70-156	3	25				
1234678-HpCDF	89	89	82-122	3	25				
1234789-HpCDF	95	94	78-138	5	25				
OCDF	96	95	63-170	5	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10b Dioxin/Furan by EPA 1613B

Batch number: 11297002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6443505	59	58	52	53	54	60
Blank	54	55	50	50	53	54
OPR	65	64	62	62	65	73
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6443505	53	54	52	55	55	57

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 09:30 AM

Group Number: 1272258

Surrogate Quality Control

Blank	51	52	49	52	52	57
OPR	65	63	62	62	66	68
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6443505	56	56	54	63	57	
Blank	53	54	51	57	54	
OPR	67	68	66	67	66	
Limits:	28-130	23-140	17-157	24-169	24-185	
Analysis Name: 10a Dioxin/Furan by EPA 1613B Batch number: 11300001						
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6443500	67	62	55	66	63	57
6443501	78	68	59	73	73	64
6443502	76	70	59	73	69	67
6443503	87	83	64	79	77	74
6443504	78	69	60	72	74	67
Blank	58	52	46	57	53	52
MS	78	72	72	81	81	73
MSD	71	67	64	72	72	67
OPR	63	57	56	65	59	59
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6443500	76	50	46	67	72	73
6443501	88	59	57	78	86	85
6443502	88	60	54	77	80	82
6443503	97	63	57	91	87	92
6443504	87	59	58	77	85	85
Blank	69	45	42	59	62	65
MS	95	68	68	79	90	92
MSD	84	58	52	73	82	81
OPR	80	53	51	65	72	72
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6443500	72	71	68	65	71	
6443501	84	82	80	70	81	
6443502	81	82	80	73	83	
6443503	91	91	86	83	94	
6443504	82	80	82	74	80	
Blank	63	65	62	52	59	
MS	89	88	88	74	82	
MSD	80	79	76	69	75	
OPR	71	74	70	56	65	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 09:30 AM

Group Number: 1272258

Surrogate Quality Control

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1272258

Sample# 6443500-05

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes		
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels ‡ Moisture by EPA 153.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																												
Samplers Signatures:																												
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 60106/60200/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chlorine EPA 7199	*pH EPA 8045C/8040B	Perchlorate Confirmation by EPA 8850 (10%)	*VOCs EPA 8260B §	1,4-Dioxane EPA 8260SIM §	TPH-GRO EPA 8015B §	**TPH-EPA EPA 8015B Mod	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Tri-Nitro EPA 1631C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Dioxins EPA 8270	
SL-016-SA5DS-SB-4.0-5.0	10.19.11	0942	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X															
SL-143-SA7-SB-5.5	10.19.11	1005	SOIL	NONE	5-Encores										X	X	X											
SL-143-SA7-SB-5.0-6.0	10.19.11	0945	SOIL	NONE	1-SS Sleeve			X	X																			
SL-143-SA7-SB-5.0-6.0	10.19.11	0945	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X	X	
SL-143-SA7-SB-9.5	10.19.11	1045	SOIL	NONE	5-Encores										X	X	X											
SL-143-SA7-SB-9.0-10.0	10.19.11	1050	SOIL	NONE	1-SS Sleeve			X	X																			
SL-143-SA7-SB-9.0-10.0	10.19.11	1050	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X					X	X	X	X	X	X	X	X	X		
SL-142-SA7-SB-2.5	10.19.11	1511	SOIL	NONE	2-Encores												X											
SL-142-SA7-SB-2.0-3.0	10.19.11	1515	SOIL	NONE	1-SS Sleeve			X	X																			
SL-142-SA7-SB-2.0-3.0	10.19.11	1515	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X					X					X	X	X	X		
SL-142-SA7-SB-5.5	10.19.11	1520	SOIL	NONE	2-Encores												X											
SL-142-SA7-SB-7.0-8.0	10.19.11	1545	SOIL	NONE	1-SS Sleeve			X	X																			
SL-142-SA7-SB-7.0-8.0	10.19.11	1545	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X					X					X	X	X	X		
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	1-1 L Amber															X								HGL ASTM II WATER-HA crew
TB-101911	10.19.11	0800	WATER	NONE	1-1 L Amber															X								
TB-101911	10.19.11	0800	SOIL	NONE	1-4 oz Jar															X								
TB-101911	10.19.11	0800	WATER	NONE	4-40 mL Vials										X	X	X											
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:		
		10/19/2011 / 1630		[Signature] LLI 10/20/11 07:5																						Lancaster Laboratories, Inc.		
Received by: (Signature)		Date/Time		Airbill No. (s)																								
				8767 9857 5176,5187,3531																								

acct #13013 Cp #1272258

sample # 6443500 05

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels † Moisture by EPA 160.3 will be performed on soil in 15 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetratin under EPA Method 8270C.							*Metals EPA 8010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCPs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 8045C/9040B	Perchlorate Confirmation by EPA 6650 (10%)	TPH-GRO EPA 8015B ‡	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**7,8-NDMA EPA 1625C	**Energelics EPA 8330A	**Cyanide EPA 9012B	**7-phenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Dowonol EPA 8270	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	10-1 liter ambers		X	X	X						X			X	X		X		X				
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	1-500 mL poly		X				X	X	X														
EB-SA7-SB-101911	10.19.11	1430	WATER	HNO3	1-500 mL poly	X																					
EB-SA7-SB-101911	10.19.11	1430	WATER	NaOH	1-500 mL poly														X								
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	1-250 mL glass											X											
EB-SA7-SB-101911	10.19.11	1430	WATER	HCL	11-40 mL vials									X								X					
EB-SA7-SB-101911	10.19.11	1430	WATER	NONE	4-40 mL vials										X					X							
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																			Laboratory:				
		10/19/2011 / 1630																					Lancaster Laboratories, Inc.				
Received by: (Signature)		Date/Time		Airbill No. (s)																							
				8767 9857 5176,5187,3531																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 18, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/21/2011

Group Number: 1272534

SDG: DE273

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-023-SA7-SB-2.0-3.0 Soil
SL-060-SA7-SB-2.5-3.5 Soil
SL-069-SA7-SB-2.5-3.5 Soil
SL-148-SA7-SB-0.0-1.0 Soil
SL-026-SA5DS-SB-4.0-5.0 Soil
SL-026-SA5DS-SB-9.0-10.0 Soil
SL-040-SA5DS-SB-4.0-5.0 Soil
SL-040-SA5DS-SB-9.0-10.0 Soil
SL-016-SA8S-SB-4.0-5.0 Soil
TB-102011 WaterLancaster Labs (LLI) #6445463
6445464
6445465
6445466
6445467
6445468
6445469
6445470
6445471
6445473

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

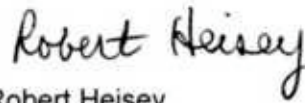
COPY TO

1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68 U	0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 U	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68 U	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68 U	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.9	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	0.62 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68 U	0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.1 U	6.1	18	1
10138	Fluoranthene	206-44-0	0.68 U	0.68	1.7	1
10138	Fluorene	86-73-7	0.68 U	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68 U	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68 U	0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68 U	0.68	1.7	1
10138	Naphthalene	91-20-3	0.68 U	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68 U	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	0.68 U	0.68	1.7	1
10138	Pyrene	129-00-0	0.68 U	0.68	1.7	1
GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.3 J	0.2	1.1	25.46
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520	1
10501	Isopropanol	67-63-0	100 U	100	520	1
10501	Methanol	67-56-1	100 U	100	520	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10	1
GC Petroleum						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.6	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.6	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.6	1
GC Petroleum						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.66 J	0.41	1.2	1
10199	EFH (C15-C20)	n.a.	2.8	0.41	1.2	1
10199	EFH (C21-C30)	n.a.	13	0.41	1.2	1
10199	EFH (C30 - C40)	n.a.	22	0.41	1.2	1
10199	EFH (C8-C11)	n.a.	0.41 U	0.41	1.2	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,100	5.97	19.7	1
07914	Boron	7440-42-8	6.14	0.355	4.93	1
01650	Calcium	7440-70-2	2,530	2.47	19.7	1
01654	Iron	7439-89-6	19,000	2.58	19.7	1
01656	Lithium	7439-93-2	27.2	0.61	2.0	1
01657	Magnesium	7439-95-4	4,510	0.434	9.87	1
06958	Manganese	7439-96-5	303	0.0355	0.493	1
10145	Phosphorus	7723-14-0	400	0.345	9.87	1
01662	Potassium	7440-09-7	3,000	11.2	49.3	1
01667	Sodium	7440-23-5	73.6 J	5.87	98.7	1
07968	Strontium	7440-24-6	14.0	0.0247	0.493	1
06969	Tin	7440-31-5	2.51 J	0.316	9.87	1
06970	Titanium	7440-32-6	1,060	0.0701	0.987	1
10146	Zirconium	7440-67-7	3.26 J	0.454	4.93	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0767 U	0.0767	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.51	0.0829	0.415	2
06126	Barium	7440-39-3	81.9	0.110	0.415	2
06127	Beryllium	7440-41-7	0.467	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.149	0.0456	0.104	2
06131	Chromium	7440-47-3	14.7	0.124	0.415	2
06132	Cobalt	7440-48-4	5.10	0.0207	0.104	2
06133	Copper	7440-50-8	6.73	0.0829	0.415	2
06135	Lead	7439-92-1	4.68	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.457	0.0518	0.104	2
06139	Nickel	7440-02-0	9.30	0.104	0.415	2
06141	Selenium	7782-49-2	0.137 J	0.0601	0.415	2
06142	Silver	7440-22-4	0.0253 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.243	0.0311	0.104	2
06148	Vanadium	7440-62-2	29.5	0.0228	0.104	2
06149	Zinc	7440-66-6	55.9	0.580	3.11	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.82	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.4	0.82	1.5	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.58	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	3.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL023 SDG#: DE273-01

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-023-SA7-SB-2.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 22:57	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 15:01	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/27/2011 16:24	Laura M Krieger	25.46
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:05	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:06	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 05:31	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:12	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:33	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 16:34	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 01:13	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL023 SDG#: DE273-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:38	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:38	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:38	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:13	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 18:45	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 18:45	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 18:24	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 16:07	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:45	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

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Page 1 of 6

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
GC Volatiles	TPH GRO mod	SW-846 8015B	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.0	24.51
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520	1
10501	Isopropanol	67-63-0	100 U	100	520	1
10501	Methanol	67-56-1	100 U	100	520	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10	1
GC Petroleum						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7	1
GC Petroleum						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.83 J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	4.3	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	8.2	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,400	6.21	20.5	1
07914	Boron	7440-42-8	5.18	0.370	5.13	1
01650	Calcium	7440-70-2	2,240	2.57	20.5	1
01654	Iron	7439-89-6	17,200	2.68	20.5	1
01656	Lithium	7439-93-2	17.2	0.64	2.1	1
01657	Magnesium	7439-95-4	3,820	0.452	10.3	1
06958	Manganese	7439-96-5	168	0.0370	0.513	1
10145	Phosphorus	7723-14-0	98.7	0.359	10.3	1
01662	Potassium	7440-09-7	945	11.6	51.3	1
01667	Sodium	7440-23-5	156	6.11	103	1
07968	Strontium	7440-24-6	15.5	0.0257	0.513	1
06969	Tin	7440-31-5	2.62 J	0.329	10.3	1
06970	Titanium	7440-32-6	968	0.0729	1.03	1
10146	Zirconium	7440-67-7	2.54 J	0.472	5.13	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0752 U	0.0752	0.203	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	2.76	0.0813	0.407	2
06126	Barium	7440-39-3	36.1	0.108	0.407	2
06127	Beryllium	7440-41-7	0.398	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.0447 U	0.0447	0.102	2
06131	Chromium	7440-47-3	13.9	0.122	0.407	2
06132	Cobalt	7440-48-4	3.37	0.0203	0.102	2
06133	Copper	7440-50-8	4.05	0.0813	0.407	2
06135	Lead	7439-92-1	2.85	0.0104	0.203	2
06138	Molybdenum	7439-98-7	0.226	0.0508	0.102	2
06139	Nickel	7440-02-0	10.8	0.102	0.407	2
06141	Selenium	7782-49-2	0.0657 J	0.0590	0.407	2
06142	Silver	7440-22-4	0.0206 J	0.0144	0.102	2
06145	Thallium	7440-28-0	0.144	0.0305	0.102	2
06148	Vanadium	7440-62-2	25.5	0.0224	0.102	2
06149	Zinc	7440-66-6	27.1	0.569	3.05	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.2	0.83	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.4 J	0.83	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.18 U	0.18	0.51	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.68	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 5 of 6

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL060 SDG#: DE273-02

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-060-SA7-SB-3.0.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 23:22	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 15:33	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 22:29	Laura M Krieger	24.51
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:07	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:07	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 05:49	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:29	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:46	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:48	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:02	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL060 SDG#: DE273-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:15	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 19:44	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 19:44	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 19:28	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 10:35	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:46	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 6

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68 U	0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 U	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68 U	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.68 U	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68 U	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.79 J	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68 U	0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.2 J	6.1	18	1
10138	Fluoranthene	206-44-0	0.68 U	0.68	1.7	1
10138	Fluorene	86-73-7	0.68 U	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68 U	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68 U	0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68 U	0.68	1.7	1
10138	Naphthalene	91-20-3	0.68 U	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68 U	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	0.68 U	0.68	1.7	1
10138	Pyrene	129-00-0	0.68 U	0.68	1.7	1
GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	26.65
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520	1
10501	Isopropanol	67-63-0	100 U	100	520	1
10501	Methanol	67-56-1	100 U	100	520	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10	1
GC Petroleum						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.6	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.6	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.6	1
GC Petroleum						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.53 J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	6.5	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	12	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,700	6.18	20.4	1
07914	Boron	7440-42-8	5.96	0.368	5.11	1
01650	Calcium	7440-70-2	2,750	2.55	20.4	1
01654	Iron	7439-89-6	23,500	2.67	20.4	1
01656	Lithium	7439-93-2	25.2	0.63	2.0	1
01657	Magnesium	7439-95-4	6,180	0.449	10.2	1
06958	Manganese	7439-96-5	322	0.0368	0.511	1
10145	Phosphorus	7723-14-0	359	0.357	10.2	1
01662	Potassium	7440-09-7	3,780	11.5	51.1	1
01667	Sodium	7440-23-5	78.9 J	6.08	102	1
07968	Strontium	7440-24-6	14.3	0.0255	0.511	1
06969	Tin	7440-31-5	2.68 J	0.327	10.2	1
06970	Titanium	7440-32-6	1,240	0.0725	1.02	1
10146	Zirconium	7440-67-7	3.10 J	0.470	5.11	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0771 U	0.0771	0.208	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.63	0.0833	0.417	2
06126	Barium	7440-39-3	82.7	0.110	0.417	2
06127	Beryllium	7440-41-7	0.585	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.0879 J	0.0458	0.104	2
06131	Chromium	7440-47-3	22.9	0.125	0.417	2
06132	Cobalt	7440-48-4	6.74	0.0208	0.104	2
06133	Copper	7440-50-8	10.0	0.0833	0.417	2
06135	Lead	7439-92-1	4.83	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.347	0.0521	0.104	2
06139	Nickel	7440-02-0	15.8	0.104	0.417	2
06141	Selenium	7782-49-2	0.132 J	0.0604	0.417	2
06142	Silver	7440-22-4	0.0376 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.263	0.0313	0.104	2
06148	Vanadium	7440-62-2	43.1	0.0229	0.104	2
06149	Zinc	7440-66-6	56.4	0.583	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0070 U	0.0070	0.0992	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.8	0.84	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.87	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

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14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL069 SDG#: DE273-03

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-069-SA7-SB-3.0.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 23:47	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 16:05	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 23:07	Laura M Krieger	26.65
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:08	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:09	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:45	Elizabeth J Marin	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/26/2011 17:41	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:59	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:26	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:25	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL069 SDG#: DE273-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:50	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:50	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:50	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:16	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 19:55	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 19:55	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 19:49	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 10:41	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:47	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 6

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.1 J	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.8 J	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	8.1 J	6.2	19	1
10138	Chrysene	218-01-9	0.38 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13 J	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5	1
10225	Aroclor 5460	11126-42-4	1.4 J	1.0	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	
10501	Ethanol	64-17-5	110	U	110	530	1
10501	Isopropanol	67-63-0	110	U	110	530	1
10501	Methanol	67-56-1	110	U	110	530	1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.3	U	5.3	11	1
08283	Ethylene glycol	107-21-1	5.3	U	5.3	11	1
08283	Propylene glycol	57-55-6	5.3	U	5.3	11	1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42	U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.71	J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	5.4		0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	13		0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42	U	0.42	1.3	1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,100		6.24	20.6	1
07914	Boron	7440-42-8	4.61	J	0.371	5.15	1
01650	Calcium	7440-70-2	2,570		2.58	20.6	1
01654	Iron	7439-89-6	19,700		2.69	20.6	1
01656	Lithium	7439-93-2	21.6		0.64	2.1	1
01657	Magnesium	7439-95-4	4,600		0.454	10.3	1
06958	Manganese	7439-96-5	253		0.0371	0.515	1
10145	Phosphorus	7723-14-0	258		0.361	10.3	1
01662	Potassium	7440-09-7	2,220		11.6	51.5	1
01667	Sodium	7440-23-5	74.8	J	6.13	103	1
07968	Strontium	7440-24-6	14.7		0.0258	0.515	1
06969	Tin	7440-31-5	2.69	J	0.330	10.3	1
06970	Titanium	7440-32-6	982		0.0732	1.03	1
10146	Zirconium	7440-67-7	2.66	J	0.474	5.15	1
		SW-846 6020	mg/kg		mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0741	U	0.0741	0.200	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.44		0.0801	0.401	2
06126	Barium	7440-39-3	82.5		0.106	0.401	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	0.607	0.0160	0.100	2
06128	Cadmium	7440-43-9	0.0780 J	0.0441	0.100	2
06131	Chromium	7440-47-3	18.2	0.120	0.401	2
06132	Cobalt	7440-48-4	6.03	0.0200	0.100	2
06133	Copper	7440-50-8	7.01	0.0801	0.401	2
06135	Lead	7439-92-1	5.48	0.0102	0.200	2
06138	Molybdenum	7439-98-7	0.466	0.0501	0.100	2
06139	Nickel	7440-02-0	11.7	0.100	0.401	2
06141	Selenium	7782-49-2	0.147 J	0.0581	0.401	2
06142	Silver	7440-22-4	0.0344 J	0.0142	0.100	2
06145	Thallium	7440-28-0	0.227	0.0300	0.100	2
06148	Vanadium	7440-62-2	35.8	0.0220	0.100	2
06149	Zinc	7440-66-6	52.2	0.561	3.00	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.84	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.9	0.84	1.6	1
		EPA 314.0	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.5	1
		SW-846 7199	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.27 J	0.21	1.0	1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.53	1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.69	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL148 SDG#: DE273-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 00:12	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 01:14	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:27	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 23:02	Elizabeth J Marin	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/26/2011 17:57	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B	1	112980042A	10/26/2011 01:12	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:04	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:49	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:53	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:53	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL148 SDG#: DE273-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:17	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:07	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 20:07	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 20:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 11:02	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:48	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

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Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	8.2 J	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.1 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Perchlorate	SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg		
06557	6a Perchlorate EPA 6850	14797-73-0	2.3 U	2.3	5.4	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg		
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.65 J	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,700	6.51	21.5	1
07914	Boron	7440-42-8	13.4	0.387	5.38	1
01650	Calcium	7440-70-2	5,730	2.69	21.5	1
01654	Iron	7439-89-6	28,500	14.0	108	5
01656	Lithium	7439-93-2	40.0	0.67	2.2	1
01657	Magnesium	7439-95-4	8,240	0.474	10.8	1
06958	Manganese	7439-96-5	323	0.0387	0.538	1
10145	Phosphorus	7723-14-0	588	0.377	10.8	1
01662	Potassium	7440-09-7	4,200	12.2	53.8	1
01667	Sodium	7440-23-5	164	6.40	108	1
07968	Strontium	7440-24-6	23.1	0.0269	0.538	1
06969	Tin	7440-31-5	2.74 J	0.344	10.8	1
06970	Titanium	7440-32-6	1,380	0.0764	1.08	1
10146	Zirconium	7440-67-7	7.39	0.495	5.38	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0804 U	0.0804	0.217	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.73	0.0870	0.435	2
06126	Barium	7440-39-3	70.5	0.115	0.435	2
06127	Beryllium	7440-41-7	0.578	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.0890 J	0.0478	0.109	2
06131	Chromium	7440-47-3	27.9	0.130	0.435	2
06132	Cobalt	7440-48-4	8.63	0.0217	0.109	2
06133	Copper	7440-50-8	10.8	0.0870	0.435	2
06135	Lead	7439-92-1	6.65	0.0111	0.217	2
06138	Molybdenum	7439-98-7	0.303	0.0543	0.109	2
06139	Nickel	7440-02-0	14.4	0.109	0.435	2
06141	Selenium	7782-49-2	0.206 J	0.0630	0.435	2
06142	Silver	7440-22-4	0.0154 U	0.0154	0.109	2
06145	Thallium	7440-28-0	0.269	0.0326	0.109	2
06148	Vanadium	7440-62-2	56.7	0.0239	0.109	2
06149	Zinc	7440-66-6	67.9	0.609	3.26	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.7	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL264 SDG#: DE273-05

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	0.22 U	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.20	0.0100	0.0100	1
Wet Chemistry						
11624	Moisture Content by 160.3	n.a.	8.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 00:37	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 01:47	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	112980018A	10/26/2011 19:33	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:46	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	112980018A	10/26/2011 09:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:20	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL264 SDG#: DE273-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:56	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:56	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:56	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:19	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 20:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	8.0 J	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11 J	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	1.8 J	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	30,100	6.64	22.0	1
07914	Boron	7440-42-8	17.5	0.395	5.49	1
01650	Calcium	7440-70-2	6,120	2.74	22.0	1
01654	Iron	7439-89-6	37,300	14.3	110	5
01656	Lithium	7439-93-2	52.9	0.68	2.2	1
01657	Magnesium	7439-95-4	10,500	0.483	11.0	1
06958	Manganese	7439-96-5	250	0.0395	0.549	1
10145	Phosphorus	7723-14-0	613	0.384	11.0	1
01662	Potassium	7440-09-7	6,250	12.4	54.9	1
01667	Sodium	7440-23-5	209	6.53	110	1
07968	Strontium	7440-24-6	31.9	0.0274	0.549	1
06969	Tin	7440-31-5	2.98 J	0.351	11.0	1
06970	Titanium	7440-32-6	1,590	0.0779	1.10	1
10146	Zirconium	7440-67-7	7.92	0.505	5.49	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0880 J	0.0812	0.220	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.86	0.0878	0.439	2
06126	Barium	7440-39-3	103	0.116	0.439	2
06127	Beryllium	7440-41-7	0.762	0.0176	0.110	2
06128	Cadmium	7440-43-9	0.108 J	0.0483	0.110	2
06131	Chromium	7440-47-3	35.9	0.132	0.439	2
06132	Cobalt	7440-48-4	8.11	0.0220	0.110	2
06133	Copper	7440-50-8	20.6	0.0878	0.439	2
06135	Lead	7439-92-1	9.82	0.0112	0.220	2
06138	Molybdenum	7439-98-7	0.165	0.0549	0.110	2
06139	Nickel	7440-02-0	22.5	0.110	0.439	2
06141	Selenium	7782-49-2	0.344 J	0.0637	0.439	2
06142	Silver	7440-22-4	0.0195 J	0.0156	0.110	2
06145	Thallium	7440-28-0	0.395	0.0329	0.110	2
06148	Vanadium	7440-62-2	67.2	0.0241	0.110	2
06149	Zinc	7440-66-6	98.9	0.615	3.29	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0142 J	0.0077	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	9.1	0.88	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.13	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:02	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 02:19	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:04	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:23	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:59	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL269 SDG#: DE273-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/31/2011 06:46	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:59	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:31	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 13:58	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:22	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

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Page 1 of 5

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8	1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72	U 0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72	U 0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72	U 0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72	U 0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72	U 0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4	U 6.4	19	1
10138	Di-n-butylphthalate	84-74-2	7.7	J 6.4	19	1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72	U 0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.3	J 6.4	19	1
10138	Fluoranthene	206-44-0	0.72	U 0.72	1.8	1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8	1
10138	Naphthalene	91-20-3	0.72	U 0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19	1
10138	Phenanthrene	85-01-8	0.72	U 0.72	1.8	1
10138	Pyrene	129-00-0	0.72	U 0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42	U 0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,000	6.53	21.6	1
07914	Boron	7440-42-8	12.2	0.389	5.40	1
01650	Calcium	7440-70-2	3,610	2.70	21.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	33,900	14.1	108	5
01656	Lithium	7439-93-2	31.3	0.67	2.2	1
01657	Magnesium	7439-95-4	7,700	0.475	10.8	1
06958	Manganese	7439-96-5	295	0.0389	0.540	1
10145	Phosphorus	7723-14-0	372	0.378	10.8	1
01662	Potassium	7440-09-7	3,930	12.2	54.0	1
01667	Sodium	7440-23-5	903	6.42	108	1
07968	Strontium	7440-24-6	34.3	0.0270	0.540	1
06969	Tin	7440-31-5	2.92 J	0.346	10.8	1
06970	Titanium	7440-32-6	1,330	0.0767	1.08	1
10146	Zirconium	7440-67-7	8.67	0.497	5.40	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0827 J	0.0799	0.216	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.45	0.0864	0.432	2
06126	Barium	7440-39-3	107	0.114	0.432	2
06127	Beryllium	7440-41-7	0.852	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.0595 J	0.0475	0.108	2
06131	Chromium	7440-47-3	36.9	0.130	0.432	2
06132	Cobalt	7440-48-4	10.5	0.0216	0.108	2
06133	Copper	7440-50-8	12.8	0.0864	0.432	2
06135	Lead	7439-92-1	8.46	0.0110	0.216	2
06138	Molybdenum	7439-98-7	0.606	0.0540	0.108	2
06139	Nickel	7440-02-0	19.5	0.108	0.432	2
06141	Selenium	7782-49-2	0.112 J	0.0626	0.432	2
06142	Silver	7440-22-4	0.0407 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.353	0.0324	0.108	2
06148	Vanadium	7440-62-2	70.5	0.0238	0.108	2
06149	Zinc	7440-66-6	69.5	0.605	3.24	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	25.0	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	3.2	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.05	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:28	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 02:52	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:23	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:27	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:02	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL404 SDG#: DE273-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:02	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:02	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:21	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:42	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 21:34	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:35	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	7.7 J	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4 J	6.3	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,800	6.38	21.1	1
07914	Boron	7440-42-8	9.92	0.380	5.27	1
01650	Calcium	7440-70-2	3,970	2.64	21.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	31,200	13.8	105	5
01656	Lithium	7439-93-2	30.1	0.65	2.1	1
01657	Magnesium	7439-95-4	7,470	0.464	10.5	1
06958	Manganese	7439-96-5	339	0.0380	0.527	1
10145	Phosphorus	7723-14-0	467	0.369	10.5	1
01662	Potassium	7440-09-7	2,760	11.9	52.7	1
01667	Sodium	7440-23-5	848	6.27	105	1
07968	Strontium	7440-24-6	28.2	0.0264	0.527	1
06969	Tin	7440-31-5	2.92 J	0.337	10.5	1
06970	Titanium	7440-32-6	1,240	0.0748	1.05	1
10146	Zirconium	7440-67-7	8.22	0.485	5.27	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0796 U	0.0796	0.215	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.47	0.0860	0.430	2
06126	Barium	7440-39-3	90.8	0.114	0.430	2
06127	Beryllium	7440-41-7	0.729	0.0172	0.108	2
06128	Cadmium	7440-43-9	0.0473 U	0.0473	0.108	2
06131	Chromium	7440-47-3	39.9	0.129	0.430	2
06132	Cobalt	7440-48-4	10.7	0.0215	0.108	2
06133	Copper	7440-50-8	10.4	0.0860	0.430	2
06135	Lead	7439-92-1	7.86	0.0110	0.215	2
06138	Molybdenum	7439-98-7	0.471	0.0538	0.108	2
06139	Nickel	7440-02-0	19.3	0.108	0.430	2
06141	Selenium	7782-49-2	0.164 J	0.0624	0.430	2
06142	Silver	7440-22-4	0.0203 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.280	0.0323	0.108	2
06148	Vanadium	7440-62-2	67.5	0.0237	0.108	2
06149	Zinc	7440-66-6	62.7	0.602	3.23	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0141 J	0.0074	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	17.1	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2011 09:15

Suite 210

Reported: 11/18/2011 12:00

Chantilly VA 20151

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.35	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:53	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 03:24	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:42	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:31	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:05	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL409 SDG#: DE273-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:05	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:05	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:22	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:54	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 14:40	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:49	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	13 J	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	8.2 J	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.5 J	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,400	6.63	21.9	1
07914	Boron	7440-42-8	9.65	0.395	5.48	1
01650	Calcium	7440-70-2	11,200	2.74	21.9	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,900	2.86	21.9	1
01656	Lithium	7439-93-2	24.6	0.68	2.2	1
01657	Magnesium	7439-95-4	4,600	0.482	11.0	1
06958	Manganese	7439-96-5	403	0.0395	0.548	1
10145	Phosphorus	7723-14-0	300	0.384	11.0	1
01662	Potassium	7440-09-7	3,940	12.4	54.8	1
01667	Sodium	7440-23-5	83.0 J	6.52	110	1
07968	Strontium	7440-24-6	21.1	0.0274	0.548	1
06969	Tin	7440-31-5	2.71 J	0.351	11.0	1
06970	Titanium	7440-32-6	1,150	0.0779	1.10	1
10146	Zirconium	7440-67-7	4.78 J	0.504	5.48	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0780 U	0.0780	0.211	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.12	0.0843	0.422	2
06126	Barium	7440-39-3	116	0.112	0.422	2
06127	Beryllium	7440-41-7	0.735	0.0169	0.105	2
06128	Cadmium	7440-43-9	0.176	0.0464	0.105	2
06131	Chromium	7440-47-3	22.5	0.127	0.422	2
06132	Cobalt	7440-48-4	8.16	0.0211	0.105	2
06133	Copper	7440-50-8	12.1	0.0843	0.422	2
06135	Lead	7439-92-1	6.92	0.0108	0.211	2
06138	Molybdenum	7439-98-7	0.490	0.0527	0.105	2
06139	Nickel	7440-02-0	16.1	0.105	0.422	2
06141	Selenium	7782-49-2	0.0647 J	0.0612	0.422	2
06142	Silver	7440-22-4	0.0377 J	0.0150	0.105	2
06145	Thallium	7440-28-0	0.313	0.0316	0.105	2
06148	Vanadium	7440-62-2	43.7	0.0232	0.105	2
06149	Zinc	7440-66-6	62.0	0.590	3.16	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.87	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	3.1	0.22	1.1	1
SW-846 9045C modified						
			Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.17	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.8	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 02:19	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 03:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 08:01	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL016 SDG#: DE273-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:08	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:26	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 21:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 15:01	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 12:15	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

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Page 1 of 1

Sample Description: TB-102011 Water
SSFL Area IV Collocated Soil Sampling
TB-102011

LLI Sample # WW 6445473
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 08:00

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

TB120 SDG#: DE273-11TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatiles						
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11300A20A	10/27/2011 17:05	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11300A20A	10/27/2011 17:05	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11295SLA026	Sample number(s): 6445463-6445471								
Aniline	170 U	170.	500	ug/kg	63		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	43		15-121		
Benzoic acid	170 U	170.	500	ug/kg	85		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	93		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	95		73-114		
Carbazole	17 U	17.	170	ug/kg	101		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	100		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	42		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	92		70-118		
bis(2-Chloroethyl) ether	17 U	17.	170	ug/kg	87		70-104		
bis(2-Chloroisopropyl) ether	17 U	17.	170	ug/kg	85		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	71		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	92		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	96		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	85		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	82		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	83		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	33		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	97		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	95		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	100		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	77		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	76		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	105		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	96		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	96		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	87		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	84		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	82		61-109		
Isophorone	17 U	17.	170	ug/kg	92		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	93		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	93		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	102		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	96		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	81		49-98		

*- Outside of specification

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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: 11/18/11 at 12:00 PM

Group Number: 1272534

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Nitrobenzene	17 U	17.	170	ug/kg	91		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	89		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	100		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	85		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	100		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	100		51-117		
Phenol	17 U	17.	170	ug/kg	96		58-112		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	90		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	101		78-111		
Batch number: 11295SLC026 Sample number(s): 6445463-6445471									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	89		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	81		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	88		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	93		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	86		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	91		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	106		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	94		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	86		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	86		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	94		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	104		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	87		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	89		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	96		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	91		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	90		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	103		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	86		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	94		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	99		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	88		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	95		72-119		
Batch number: 11299A16A Sample number(s): 6445463-6445465									
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	74	75	67-119	2	30
Batch number: 11300A20A Sample number(s): 6445473									
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	109	109	75-135	0	30
Batch number: 112980018A Sample number(s): 6445467									
6a Perchlorate EPA 6850	2.1 U	2.1	5.0	ug/kg	100		85-115		
Batch number: 112990025A Sample number(s): 6445463-6445471									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	85	61	36-106	32*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	117		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	153*		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 112970037A	Sample number(s): 6445463-6445466								
Ethanol	100 U	100.	500	ug/kg	93		71-129		
Isopropanol	100 U	100.	500	ug/kg	95		75-125		
Methanol	100 U	100.	500	ug/kg	100		68-129		
Batch number: 112980042A	Sample number(s): 6445463-6445466								
Diethylene glycol	5.0 U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	106		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 112990013A	Sample number(s): 6445463-6445466								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	102		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	104		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	104		69-109		
Batch number: 113000011A	Sample number(s): 6445463-6445466								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	96		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	99		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	99		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	84		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	88		49-107		
Batch number: 112971026003A	Sample number(s): 6445463-6445471								
Antimony	0.0705 U	0.0705	0.190	mg/kg	79		40-227		
Arsenic	0.0762 U	0.0762	0.381	mg/kg	105		83-111		
Beryllium	0.0152 U	0.0152	0.0952	mg/kg	104		84-112		
Cadmium	0.0419 U	0.0419	0.0952	mg/kg	102		83-111		
Chromium	0.114 U	0.114	0.381	mg/kg	112		77-123		
Cobalt	0.0190 U	0.0190	0.0952	mg/kg	107		85-114		
Copper	0.0762 U	0.0762	0.381	mg/kg	107		81-110		
Lead	0.0121 U	0.0097	0.190	mg/kg	101		84-112		
Nickel	0.0952 U	0.0952	0.381	mg/kg	101		81-110		
Silver	0.0135 U	0.0135	0.0952	mg/kg	103		83-112		
Thallium	0.0286 U	0.0286	0.0952	mg/kg	100		82-112		
Vanadium	0.0210 U	0.0210	0.0952	mg/kg	102		76-110		
Zinc	0.533 U	0.533	2.86	mg/kg	99		82-110		
Batch number: 112971026003B	Sample number(s): 6445463-6445471								
Selenium	0.0552 U	0.0552	0.381	mg/kg	101		79-110		
Batch number: 112971026003C	Sample number(s): 6445463-6445471								
Molybdenum	0.0476 U	0.0476	0.0952	mg/kg	101		80-110		
Batch number: 112971026003D	Sample number(s): 6445463-6445471								
Barium	0.101 U	0.101	0.381	mg/kg	102		83-110		
Batch number: 112975708006	Sample number(s): 6445463-6445471								
Aluminum	6.05 U	6.05	20.0	mg/kg	88		40-127		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Boron	0.447 J	0.360	5.00	mg/kg	102		83-110		
Calcium	17.2 J	2.50	20.0	mg/kg	95		81-110		
Iron	2.61 U	2.61	20.0	mg/kg	88		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	101		80-120		
Magnesium	2.05 J	0.440	10.0	mg/kg	91		63-116		
Manganese	0.0480 J	0.0360	0.500	mg/kg	101		85-116		
Phosphorus	1.14 J	0.350	10.0	mg/kg	103		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	103		71-110		
Sodium	5.95 U	5.95	100	mg/kg	103		76-110		
Strontium	0.0770 J	0.0250	0.500	mg/kg	101		84-110		
Tin	1.18 J	0.320	10.0	mg/kg	94		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	91		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	101		80-120		
Batch number: 112975711003	Sample number(s): 6445463-6445471								
Mercury	0.0070 U	0.0070	0.0989	mg/kg	111		83-119		
Batch number: 11298621201B	Sample number(s): 6445463-6445471								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	99		85-115		
Batch number: 11300102201A	Sample number(s): 6445463-6445466								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	96		80-120		
Batch number: 11305243201A	Sample number(s): 6445463-6445471								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	95		80-120		
Batch number: 11306621203A	Sample number(s): 6445463-6445471								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	101		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	102		90-110		
Batch number: 11300039403A	Sample number(s): 6445463-6445471								
17a pH by 9045C					100		95-105		
Batch number: 11301162401B	Sample number(s): 6445463-6445471								
Moisture Content by 160.3					99		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11295SLA026	Sample number(s): 6445463-6445471 UNSPK: P443490								
Aniline	65	74	18-116	13	30				
Benidine	0*	0*	35-141	0	30				
Benzoic acid	74	58	10-173	25	30				
Benzyl alcohol	90	94	67-115	5	30				
4-Bromophenyl-phenylether	92	96	67-129	4	30				
Carbazole	92	98	64-120	6	30				
4-Chloro-3-methylphenol	94	99	62-122	6	30				
4-Chloroaniline	55	70	13-107	24	30				
bis(2-Chloroethoxy)methane	93	98	75-104	6	30				
bis(2-Chloroethyl)ether	88	90	60-116	2	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
bis(2-Chloroisopropyl) ether	84	86	55-142	2	30				
2-Chloronaphthalene	71	74	50-141	4	30				
2-Chlorophenol	94	97	73-121	3	30				
4-Chlorophenyl-phenylether	94	97	80-109	3	30				
Dibenzofuran	91	96	71-112	5	30				
1,2-Dichlorobenzene	85	87	66-108	2	30				
1,3-Dichlorobenzene	85	86	63-109	1	30				
1,4-Dichlorobenzene	85	86	58-108	2	30				
3,3'-Dichlorobenzidine	39	55	28-109	33*	30				
2,4-Dichlorophenol	97	100	66-123	3	30				
2,4-Dimethylphenol	93	98	68-118	5	30				
3,5-Dimethylphenol	98	104	71-127	5	30				
4,6-Dinitro-2-methylphenol	80	46	11-126	53*	30				
2,4-Dinitrophenol	65	20	20-143	104*	30				
2,4-Dinitrotoluene	98	100	56-129	2	30				
2,6-Dinitrotoluene	97	101	69-123	4	30				
1,2-Diphenylhydrazine	94	97	71-129	3	30				
Hexachlorobenzene	91	96	77-114	5	30				
Hexachlorobutadiene	86	91	62-120	6	30				
Hexachlorocyclopentadiene	87	86	10-153	1	30				
Hexachloroethane	84	84	57-109	0	30				
Isophorone	89	94	73-102	5	30				
2-Methylphenol	95	97	75-111	2	30				
4-Methylphenol	93	95	59-123	1	30				
2-Nitroaniline	98	101	67-125	3	30				
3-Nitroaniline	93	100	59-122	7	30				
4-Nitroaniline	81	89	41-109	10	30				
Nitrobenzene	89	95	57-125	7	30				
2-Nitrophenol	90	91	56-127	2	30				
4-Nitrophenol	86	90	37-129	5	30				
N-Nitroso-di-n-propylamine	84	87	60-116	3	30				
N-Nitrosodiphenylamine	95	98	71-122	4	30				
Pentachlorophenol	96	87	28-127	9	30				
Phenol	96	100	58-126	4	30				
1,2,4-Trichlorobenzene	88	93	72-115	5	30				
2,4,5-Trichlorophenol	94	98	58-129	4	30				
2,4,6-Trichlorophenol	94	96	56-134	2	30				
Batch number: 11295SLC026 Sample number(s): 6445463-6445471 UNSPK: P443491									
Acenaphthene	92	89	63-105	3	30				
Acenaphthylene	88	85	67-114	3	30				
Anthracene	95	92	73-115	3	30				
Benzo(a)anthracene	99	97	59-128	2	30				
Benzo(a)pyrene	92	90	58-142	2	30				
Benzo(b)fluoranthene	91	88	54-163	3	30				
Benzo(g,h,i)perylene	102	98	33-141	4	30				
Benzo(k)fluoranthene	93	92	57-153	1	30				
Butylbenzylphthalate	100	96	57-173	5	30				
Di-n-butylphthalate	94	94	65-148	0	30				
Chrysene	98	97	67-123	1	30				
Dibenz(a,h)anthracene	104	101	22-133	2	30				
Diethylphthalate	91	88	70-136	4	30				
Dimethylphthalate	94	91	74-118	3	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Bis(2-Ethylhexyl)phthalate	124	119	39-167	4	30				
Fluoranthene	95	94	51-149	1	30				
Fluorene	91	88	66-122	3	30				
Indeno(1,2,3-cd)pyrene	104	100	21-143	3	30				
1-Methylnaphthalene	86	82	72-123	5	30				
2-Methylnaphthalene	85	82	64-103	4	30				
Naphthalene	87	83	61-102	5	30				
N-Nitrosodimethylamine	96	89	48-113	8	30				
Di-n-octylphthalate	89	89	40-192	0	30				
Phenanthrene	91	88	62-122	3	30				
Pyrene	95	88	51-131	7	30				
Batch number: 112980018A	Sample number(s): 6445467 UNSPK: P439929								
6a Perchlorate EPA 6850	100	104	80-120	4	20				
Batch number: 112990025A	Sample number(s): 6445463-6445471 UNSPK: P446810								
PCB-1016	109	123	29-146	12	50				
PCB-1260	110	118	39-149	7	50				
Batch number: 112970037A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
Ethanol	84	91	48-130	8	20				
Isopropanol	90	94	12-149	5	20				
Methanol	89	100	43-138	11	20				
Batch number: 112980042A	Sample number(s): 6445463-6445466 UNSPK: P437195								
Diethylene glycol	47*	48*	59-109	3	20				
Ethylene glycol	75	75	63-107	1	20				
Propylene glycol	77	78	63-107	0	20				
Batch number: 112990013A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
m-Terphenyl	107	105	75-125	2	20				
o-Terphenyl	106	105	75-125	2	20				
p-Terphenyl	106	104	75-125	2	20				
Batch number: 113000011A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
EFH (C12-C14)	119	283*	49-123	59*	20				
EFH (C15-C20)	494*	190*	49-123	55*	20				
EFH (C21-C30)	1022	728 (2)	49-123	20	20				
	(2)								
EFH (C30 - C40)	292 (2)	353 (2)	49-123	5	20				
EFH (C8-C11)	90	90	49-123	0	20				
Batch number: 112971026003A	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Antimony	28*	28*	75-125	1	20	0.103 J	0.0806 J	25* (1)	20
Arsenic	82	57*	75-125	6	20	6.62	6.98	5	20
Beryllium	90	72*	75-125	10	20	0.824	0.814	1	20
Cadmium	105	96	75-125	9	20	0.0882 J	0.0745 J	17 (1)	20
Chromium	88	60*	75-125	9	20	25.6	25.3	1	20
Cobalt	101	97	75-125	4	20	7.66	7.86	3	20
Copper	95	89	75-125	3	20	11.4	11.8	4	20
Lead	101	50*	75-125	15	20	7.46	7.35	1	20
Nickel	92	85	75-125	3	20	15.3	15.6	2	20
Silver	104	102	75-125	2	20	0.0299 J	0.0293 J	2 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Thallium	92	79	75-125	8	20	0.319	0.280	13 (1)	20
Vanadium	80 (2)	51 (2)	75-125	5	20	49.7	50.1	1	20
Zinc	67 (2)	45 (2)	75-125	4	20	53.4	53.2	0	20
Batch number: 112971026003B	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Selenium	91	97	75-125	5	20	0.0790 J	0.0998 J	23* (1)	20
Batch number: 112971026003C	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Molybdenum	94	92	75-125	3	20	0.533	0.502	6	20
Batch number: 112971026003D	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Barium	43 (2)	-80 (2)	75-125	11	20	109	113	3	20
Batch number: 112975708006	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Aluminum	1918 (2)	-1788 (2)	75-125	27*	20	27,400	28,100	2	20
Boron	96	92	84-115	2	20	9.74	9.76	0 (1)	20
Calcium	-52 (2)	77 (2)	75-125	4	20	12,800	11,100	14	20
Iron	2334 (2)	-2778 (2)	75-125	20	20	25,600	27,400	7	20
Lithium	103	91	82-114	8	20	26.0	27.0	4	20
Magnesium	254 (2)	-105 (2)	75-125	14	20	5,070	5,250	4	20
Manganese	42 (2)	52 (2)	75-125	2	20	282	320	13	20
Phosphorus	87	98	75-125	5	20	168	165	2	20
Potassium	151*	80	75-125	18	20	2,640	2,740	3	20
Sodium	100	93	75-125	6	20	75.4 J	75.9 J	1 (1)	20
Strontium	99	96	75-115	1	20	19.6	19.5	0	20
Tin	81	80	80-110	1	20	2.73 J	2.88 J	5 (1)	20
Titanium	218 (2)	155 (2)	75-125	5	20	1,070	1,110	4	20
Zirconium	96	88	81-110	6	20	5.00	6.41	25* (1)	20
Batch number: 112975711003	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Mercury	95	102	65-135	9	20	0.0150 J	0.0204 J	30* (1)	20
Batch number: 11298621201B	Sample number(s): 6445463-6445471 UNSPK: 6445463 BKG: 6445463								
7a Perchlorate EPA 314.0	108		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11300102201A	Sample number(s): 6445463-6445466 UNSPK: P443491 BKG: P443491								
16a Cyanide by 9012B	102		75-125			0.18 U	0.18 U	0 (1)	20
Batch number: 11305243201A	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
3a Cr VI by EPA 7199	94		75-125			0.21 J	0.56 J	90* (1)	20
Batch number: 11306621203A	Sample number(s): 6445463-6445471 UNSPK: 6445463 BKG: 6445463								
11a Anions by 300.0 - Fluoride	73*		80-120			1.1	0.80 U	200* (1)	20
11a Anions by 300.0 - Nitrate	104		80-120			2.3	2.1	9 (1)	20
Batch number: 11300039403A	Sample number(s): 6445463-6445471 BKG: 6445463								
17a pH by 9045C						6.58	6.60	0	3
Batch number: 11301162401B	Sample number(s): 6445463-6445471 BKG: 6445471								
Moisture Content by 160.3						8.8	8.8	0	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11295SLA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6445463	96	97	84	89	92	102
6445464	88	91	81	82	85	93
6445465	95	97	82	84	86	96
6445466	88	90	81	83	86	96
6445467	88	91	75	85	86	96
6445468	91	93	70	83	83	98
6445469	89	92	69	84	86	95
6445470	87	89	71	79	82	96
6445471	91	94	70	83	84	99
Blank	86	90	84	86	88	99
LCS	89	90	91	85	88	101
MS	92	94	86	86	87	96
MSD	95	98	89	91	92	101
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11295SLC026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6445463	90	55	69
6445464	96	79	68
6445465	92	78	72
6445466	86	77	71
6445467	88	79	88
6445468	82	72	82
6445469	85	77	86
6445470	79	72	82
6445471	87	60	85
Blank	93	82	81
LCS	98	81	86
MS	100	83	84
MSD	97	80	80
Limits:	40-130	45-130	45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11299A16A
Trifluorotoluene-F

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Surrogate Quality Control

6445463 119
6445464 90
6445465 91
Blank 96
LCS 89
LCSD 93

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11300A20A
Trifluorotoluene-F

6445473 86
Blank 88
LCS 117
LCSD 115

Limits: 63-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 112990025A
Tetrachloro-m-xylene Decachlorobiphenyl

6445463	110	121*
6445464	115	129*
6445465	117	131*
6445466	97	109
6445467	101	106
6445468	104	96
6445469	101	113
6445470	107	113
6445471	95	100
Blank	103	124*
LCS	136	163*
LCSD	101	113
MS	108	109
MSD	104	118

Limits: 53-139 45-120

Analysis Name: 18a Alcohols by 8015B
Batch number: 112970037A
Acetone

6445463 89
6445464 92
6445465 94
6445466 89
Blank 97
LCS 103
MS 94
MSD 95

Limits: 42-138

Analysis Name: 19a Glycols by 8015B

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Surrogate Quality Control

Batch number: 112980042A
Tetramethylene glycol

6445463	88
6445464	88
6445465	86
6445466	87
Blank	100
LCS	99
MS	88
MSD	87

Limits: 29-137

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112990013A
n-Triacontane-d62

6445463	86
6445464	78
6445465	75
6445466	93
Blank	76
LCS	76
MS	95
MSD	85

Limits: 19-152

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 113000011A
Chlorobenzene Orthoterphenyl

6445463	84	87
6445464	89	91
6445465	85	89
6445466	90	92
Blank	83	87
LCS	80	90
MS	85	75
MSD	88	81

Limits: 37-125 47-145

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

13013 1272534 6445463-73

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 8010/8200/8247/11A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & P44s 8270 SIM	*PCB/PCP/PAHs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex. Chlorine EPA 7169	*PH EPA 8045C/8040B	Perchlorate Confirmation by EPA 8850 (10%)	*TPH-GRO EPA 8015B \$	**TPH-LEPH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Th-NDMA EPA 1625C	**Etiopetrol EPA 6330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Dioxins EPA 8270	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-023-SA7-SB-2.5	10.20.11	0915	SOIL	NONE	2-Encores																						
SL-023-SA7-SB-2.0-3.0	10.20.11	0918	SOIL	NONE	1-SS Sleeve			X	X																		
SL-023-SA7-SB-2.0-3.0	10.20.11	0918	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X					X	X	X	X						
SL-060-SA7-SB-9.0	10.20.11	1100	SOIL	NONE	2-Encores									X													
SL-060-SA7-SB-2.5-3.5	10.20.11	1105	SOIL	NONE	1-SS Sleeve			X	X																		
SL-060-SA7-SB-2.5-3.5	10.20.11	1105	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X			X	X	X	X					
SL-069-SA7-SB-3.0	10.20.11	1520	SOIL	NONE	2-Encores									X													
SL-069-SA7-SB-2.5-3.5	10.20.11	1523	SOIL	NONE	1-SS Sleeve			X	X																		
SL-069-SA7-SB-2.5-3.5	10.20.11	1523	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X			X	X	X	X					
SL-148-SA7-SB-0.0-1.0	10.20.11	1423	SOIL	NONE	1-SS Sleeve			X	X																		
SL-148-SA7-SB-0.0-1.0	10.20.11	1423	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X			X	X	X	X					
SL-026-SA5DS-SB-4.0-5.0	10.20.11	1237	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X													
SL-026-SA5DS-SB-9.0-10.0	10.20.11	1155	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-040-SA5DS-SB-4.0-5.0	10.20.11	1001	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-040-SA5DS-SB-9.0-10.0	10.20.11	0920	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-016-SA8S-SB-4.0-5.0	10.20.11	1508	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
EB-SA5DS-SB-102011	10.20.11	1400	WATER	NONE	1-1 L Amber											X											
TB-4042044-102011 NIKKOL	10.20.11	0800	WATER	NONE	2-40 mL Vials									X													
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																		Laboratory:					
		10/20/2011 / 1630																				Lancaster Laboratories, Inc.					
Received by: (Signature)		Date/Time		Airbill No. (s)																							
				8767 9858 7618,7629																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 01, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/21/2011

Group Number: 1272535

SDG: DX150

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-023-SA7-SB-2.0-3.0 Soil
SL-060-SA7-SB-2.5-3.5 Soil
SL-069-SA7-SB-2.5-3.5 Soil
SL-148-SA7-SB-0.0-1.0 Soil
SL-026-SA5DS-SB-4.0-5.0 Soil
SL-026-SA5DS-SB-9.0-10.0 Soil
SL-040-SA5DS-SB-4.0-5.0 Soil
SL-040-SA5DS-SB-9.0-10.0 Soil
SL-016-SA5DS-SB-4.0-5.0 SoilLancaster Labs (LLI) #6445474
6445475
6445476
6445477
6445478
6445479
6445480
6445481
6445482

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445474
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD023 SDG#: DX150-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	3.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445474
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD023 SDG#: DX150-12

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	0.0332 U	0.0332	1.03	1
11031	12378-PeCDD	40321-76-4	0.0570 JBQ	0.0274	5.15	1
11031	123478-HxCDD	39227-28-6	0.0513 JBQ	0.0261	5.15	1
11031	123678-HxCDD	57653-85-7	0.199 JB	0.0265	5.15	1
11031	123789-HxCDD	19408-74-3	0.310 JBQ	0.0252	5.15	1
11031	1234678-HpCDD	35822-46-9	2.55 JB	0.0314	5.15	1
11031	OCDD	3268-87-9	22.0 B	0.0411	10.3	1
11031	2378-TCDF	51207-31-9	0.0490 JQ	0.0359	1.03	1
11031	12378-PeCDF	57117-41-6	0.0624 JBQ	0.0233	5.15	1
11031	23478-PeCDF	57117-31-4	0.176 JB	0.0237	5.15	1
11031	123478-HxCDF	70648-26-9	0.462 J	0.0289	5.15	1
11031	123678-HxCDF	57117-44-9	0.0703 JB	0.0245	5.15	1
11031	123789-HxCDF	72918-21-9	0.137 JB	0.0298	5.15	1
11031	234678-HxCDF	60851-34-5	0.0988 JB	0.0218	5.15	1
11031	1234678-HpCDF	67562-39-4	0.653 JB	0.0166	5.15	1
11031	1234789-HpCDF	55673-89-7	0.0434 JB	0.0277	5.15	1
11031	OCDF	39001-02-0	1.53 JB	0.0413	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445474
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD023 SDG#: DX150-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445474
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD023 SDG#: DX150-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 02:51	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445475
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD060 SDG#: DX150-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445475
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD060 SDG#: DX150-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0242 U	0.0242	1.04	1
11031	12378-PeCDD	40321-76-4	0.0208 U	0.0208	5.21	1
11031	123478-HxCDD	39227-28-6	0.0162 U	0.0162	5.21	1
11031	123678-HxCDD	57653-85-7	0.0201 JBQ	0.0165	5.21	1
11031	123789-HxCDD	19408-74-3	0.0198 JB	0.0169	5.21	1
11031	1234678-HpCDD	35822-46-9	0.283 JB	0.0176	5.21	1
11031	OCDD	3268-87-9	1.58 JB	0.0248	10.4	1
11031	2378-TCDF	51207-31-9	0.0164 U	0.0164	1.04	1
11031	12378-PeCDF	57117-41-6	0.00932 U	0.00932	5.21	1
11031	23478-PeCDF	57117-31-4	0.0512 JBQ	0.00942	5.21	1
11031	123478-HxCDF	70648-26-9	0.0458 J	0.0119	5.21	1
11031	123678-HxCDF	57117-44-9	0.00901 U	0.00901	5.21	1
11031	123789-HxCDF	72918-21-9	0.0231 JBQ	0.0114	5.21	1
11031	234678-HxCDF	60851-34-5	0.0300 JBQ	0.00848	5.21	1
11031	1234678-HpCDF	67562-39-4	0.138 JB	0.00942	5.21	1
11031	1234789-HpCDF	55673-89-7	0.0237 JBQ	0.0171	5.21	1
11031	OCDF	39001-02-0	0.200 JBQ	0.0326	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	56	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
 SSFL Area IV Collocated Soil Sampling
 SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445475
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

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Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD060 SDG#: DX150-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445475
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD060 SDG#: DX150-13

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 03:48	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445476
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD069 SDG#: DX150-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445476
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD069 SDG#: DX150-14

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	0.0271 JQ	0.0243	1.01	1
11031	12378-PeCDD	40321-76-4	0.0228 U	0.0228	5.04	1
11031	123478-HxCDD	39227-28-6	0.0170 U	0.0170	5.04	1
11031	123678-HxCDD	57653-85-7	0.0460 JBQ	0.0179	5.04	1
11031	123789-HxCDD	19408-74-3	0.0442 JBQ	0.0174	5.04	1
11031	1234678-HpCDD	35822-46-9	0.429 JB	0.0198	5.04	1
11031	OCDD	3268-87-9	2.28 JB	0.0297	10.1	1
11031	2378-TCDF	51207-31-9	0.0260 JQ	0.0204	1.01	1
11031	12378-PeCDF	57117-41-6	0.0351 JB	0.0121	5.04	1
11031	23478-PeCDF	57117-31-4	0.0799 JBQ	0.0125	5.04	1
11031	123478-HxCDF	70648-26-9	0.0475 J	0.0145	5.04	1
11031	123678-HxCDF	57117-44-9	0.0469 JBQ	0.0122	5.04	1
11031	123789-HxCDF	72918-21-9	0.0420 JBQ	0.0166	5.04	1
11031	234678-HxCDF	60851-34-5	0.0564 JBQ	0.0123	5.04	1
11031	1234678-HpCDF	67562-39-4	0.157 JB	0.0118	5.04	1
11031	1234789-HpCDF	55673-89-7	0.0242 JB	0.0228	5.04	1
11031	OCDF	39001-02-0	0.210 JBQ	0.0347	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445476
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD069 SDG#: DX150-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Page 4 of 4

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445476
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD069 SDG#: DX150-14

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 04:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445477
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD148 SDG#: DX150-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445477
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD148 SDG#: DX150-15

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	0.0293 U	0.0293	1.04	1
11031	12378-PeCDD	40321-76-4	0.0351 JBQ	0.0268	5.22	1
11031	123478-HxCDD	39227-28-6	0.0500 JBQ	0.0238	5.22	1
11031	123678-HxCDD	57653-85-7	0.111 JB	0.0242	5.22	1
11031	123789-HxCDD	19408-74-3	0.128 JB	0.0244	5.22	1
11031	1234678-HpCDD	35822-46-9	1.84 JB	0.0293	5.22	1
11031	OCDD	3268-87-9	16.8 B	0.0396	10.4	1
11031	2378-TCDF	51207-31-9	0.0365 JQ	0.0286	1.04	1
11031	12378-PeCDF	57117-41-6	0.0730 JB	0.0154	5.22	1
11031	23478-PeCDF	57117-31-4	0.108 JB	0.0167	5.22	1
11031	123478-HxCDF	70648-26-9	0.110 J	0.0229	5.22	1
11031	123678-HxCDF	57117-44-9	0.0770 JBQ	0.0180	5.22	1
11031	123789-HxCDF	72918-21-9	0.0441 JB	0.0209	5.22	1
11031	234678-HxCDF	60851-34-5	0.0610 JB	0.0152	5.22	1
11031	1234678-HpCDF	67562-39-4	0.437 JB	0.0158	5.22	1
11031	1234789-HpCDF	55673-89-7	0.0671 JB	0.0253	5.22	1
11031	OCDF	39001-02-0	0.833 JB	0.0442	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	46	26 - 152
13C12-123678-HxCDF	60	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445477
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD148 SDG#: DX150-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445477
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD148 SDG#: DX150-15

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 05:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445478
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD264 SDG#: DX150-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	8.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445478
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD264 SDG#: DX150-16

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	0.0276 U	0.0276	1.05	1
11031	12378-PeCDD	40321-76-4	0.0233 U	0.0233	5.27	1
11031	123478-HxCDD	39227-28-6	0.0419 JBQ	0.0190	5.27	1
11031	123678-HxCDD	57653-85-7	0.0749 JBQ	0.0193	5.27	1
11031	123789-HxCDD	19408-74-3	0.0559 JBQ	0.0188	5.27	1
11031	1234678-HpCDD	35822-46-9	0.555 JBQ	0.0239	5.27	1
11031	OCDD	3268-87-9	3.60 JB	0.0293	10.5	1
11031	2378-TCDF	51207-31-9	0.0251 JQ	0.0202	1.05	1
11031	12378-PeCDF	57117-41-6	0.0656 JB	0.0118	5.27	1
11031	23478-PeCDF	57117-31-4	0.123 JB	0.0132	5.27	1
11031	123478-HxCDF	70648-26-9	0.0647 JQ	0.0172	5.27	1
11031	123678-HxCDF	57117-44-9	0.0349 JBQ	0.0127	5.27	1
11031	123789-HxCDF	72918-21-9	0.0230 JB	0.0161	5.27	1
11031	234678-HxCDF	60851-34-5	0.0370 JBQ	0.0116	5.27	1
11031	1234678-HpCDF	67562-39-4	0.191 JB	0.0104	5.27	1
11031	1234789-HpCDF	55673-89-7	0.0221 JBQ	0.0203	5.27	1
11031	OCDF	39001-02-0	0.395 JB	0.0424	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	45	26 - 152
13C12-123678-HxCDF	61	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	56	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445478
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD264 SDG#: DX150-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445478
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD264 SDG#: DX150-16

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 06:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445479
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD269 SDG#: DX150-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445479
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD269 SDG#: DX150-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0537 JQ	0.0319	1.08	1
11031	12378-PeCDD	40321-76-4	0.110 JB	0.0273	5.40	1
11031	123478-HxCDD	39227-28-6	0.0210 U	0.0210	5.40	1
11031	123678-HxCDD	57653-85-7	0.0734 JB	0.0199	5.40	1
11031	123789-HxCDD	19408-74-3	0.0487 JBQ	0.0199	5.40	1
11031	1234678-HpCDD	35822-46-9	0.263 JB	0.0257	5.40	1
11031	OCDD	3268-87-9	0.667 JB	0.0381	10.8	1
11031	2378-TCDF	51207-31-9	0.0563 J	0.0241	1.08	1
11031	12378-PeCDF	57117-41-6	0.159 JB	0.0144	5.40	1
11031	23478-PeCDF	57117-31-4	0.0157 U	0.0157	5.40	1
11031	123478-HxCDF	70648-26-9	0.0689 JQ	0.0193	5.40	1
11031	123678-HxCDF	57117-44-9	0.0426 JBQ	0.0150	5.40	1
11031	123789-HxCDF	72918-21-9	0.0855 JB	0.0201	5.40	1
11031	234678-HxCDF	60851-34-5	0.0297 JBQ	0.0145	5.40	1
11031	1234678-HpCDF	67562-39-4	0.0992 JB	0.00999	5.40	1
11031	1234789-HpCDF	55673-89-7	0.0417 JBQ	0.0218	5.40	1
11031	OCDF	39001-02-0	0.210 JB	0.0469	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	47	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	61	28 - 136
13C12-123789-HxCDF	52	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	47	26 - 138
13C12-OCDF	45	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Estimated Detection Limit and Minimum Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration
- F* Interference is present

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445479
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD269 SDG#: DX150-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445479
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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Chantilly VA 20151

SD269 SDG#: DX150-17

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 07:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445480
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD404 SDG#: DX150-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	8.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445480
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD404 SDG#: DX150-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0378 U	0.0378	1.08	1
11031	12378-PeCDD	40321-76-4	0.0860 JBQ	0.0312	5.40	1
11031	123478-HxCDD	39227-28-6	0.0279 JB	0.0184	5.40	1
11031	123678-HxCDD	57653-85-7	0.0420 JB	0.0181	5.40	1
11031	123789-HxCDD	19408-74-3	0.0702 JBQ	0.0179	5.40	1
11031	1234678-HpCDD	35822-46-9	0.186 JB	0.0256	5.40	1
11031	OCDD	3268-87-9	0.582 JB	0.0418	10.8	1
11031	2378-TCDF	51207-31-9	0.0275 U	0.0275	1.08	1
11031	12378-PeCDF	57117-41-6	0.0733 JB	0.0158	5.40	1
11031	23478-PeCDF	57117-31-4	0.0902 JBQ	0.0173	5.40	1
11031	123478-HxCDF	70648-26-9	0.0409 JQ	0.0217	5.40	1
11031	123678-HxCDF	57117-44-9	0.0414 JBQ	0.0162	5.40	1
11031	123789-HxCDF	72918-21-9	0.0552 JB	0.0185	5.40	1
11031	234678-HxCDF	60851-34-5	0.0383 JB	0.0138	5.40	1
11031	1234678-HpCDF	67562-39-4	0.135 JBQ	0.0122	5.40	1
11031	1234789-HpCDF	55673-89-7	0.0399 JB	0.0205	5.40	1
11031	OCDF	39001-02-0	0.171 JB	0.0579	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	52	26 - 123
13C12-234678-HxCDF	61	28 - 136
13C12-123789-HxCDF	54	29 - 147
13C12-1234678-HpCDF	68	28 - 143
13C12-1234789-HpCDF	48	26 - 138
13C12-OCDF	45	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445480
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD404 SDG#: DX150-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Page 4 of 4

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445480
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD404 SDG#: DX150-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 08:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445481
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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Chantilly VA 20151

SD409 SDG#: DX150-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445481
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

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Reported: 11/01/2011 12:50

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SD409 SDG#: DX150-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0311 U	0.0311	1.07	1
11031	12378-PeCDD	40321-76-4	0.0347 JBQ	0.0261	5.34	1
11031	123478-HxCDD	39227-28-6	0.0171 U	0.0171	5.34	1
11031	123678-HxCDD	57653-85-7	0.0363 JB	0.0176	5.34	1
11031	123789-HxCDD	19408-74-3	0.0672 JB	0.0171	5.34	1
11031	1234678-HpCDD	35822-46-9	0.245 JB	0.0226	5.34	1
11031	OCDD	3268-87-9	0.613 JB	0.0396	10.7	1
11031	2378-TCDF	51207-31-9	0.0230 U	0.0230	1.07	1
11031	12378-PeCDF	57117-41-6	0.0126 U	0.0126	5.34	1
11031	23478-PeCDF	57117-31-4	0.0293 JB	0.0138	5.34	1
11031	123478-HxCDF	70648-26-9	0.0471 JQ	0.0153	5.34	1
11031	123678-HxCDF	57117-44-9	0.0142 JBQ	0.0123	5.34	1
11031	123789-HxCDF	72918-21-9	0.118 JBQ	0.0147	5.34	1
11031	234678-HxCDF	60851-34-5	0.0345 JBQ	0.0108	5.34	1
11031	1234678-HpCDF	67562-39-4	0.0813 JB	0.0102	5.34	1
11031	1234789-HpCDF	55673-89-7	0.0318 JBQ	0.0194	5.34	1
11031	OCDF	39001-02-0	0.190 JB	0.0460	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	90	25 - 181
13C12-123478-HxCDD	94	32 - 141
13C12-123678-HxCDD	94	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	54	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445481
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD409 SDG#: DX150-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Page 4 of 4

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445481
LLI Group # 1272535
Account # 13013

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Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD409 SDG#: DX150-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11300001	10/30/2011 18:14	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445482
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD016 SDG#: DX150-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	8.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445482
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/01/2011 12:50

Suite 210

Chantilly VA 20151

SD016 SDG#: DX150-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0435 U	0.0435	1.09	1
11031	12378-PeCDD	40321-76-4	0.0361 U	0.0361	5.44	1
11031	123478-HxCDD	39227-28-6	0.0230 JBQ	0.0221	5.44	1
11031	123678-HxCDD	57653-85-7	0.0219 U	0.0219	5.44	1
11031	123789-HxCDD	19408-74-3	0.0393 JBQ	0.0214	5.44	1
11031	1234678-HpCDD	35822-46-9	0.314 JBQ	0.0243	5.44	1
11031	OCDD	3268-87-9	0.618 JB	0.0498	10.9	1
11031	2378-TCDF	51207-31-9	0.0331 U	0.0331	1.09	1
11031	12378-PeCDF	57117-41-6	0.0529 JBQ	0.0164	5.44	1
11031	23478-PeCDF	57117-31-4	0.134 JBQ	0.0173	5.44	1
11031	123478-HxCDF	70648-26-9	0.0636 J	0.0231	5.44	1
11031	123678-HxCDF	57117-44-9	0.0383 JBQ	0.0184	5.44	1
11031	123789-HxCDF	72918-21-9	0.0410 JB	0.0195	5.44	1
11031	234678-HxCDF	60851-34-5	0.0377 JBQ	0.0146	5.44	1
11031	1234678-HpCDF	67562-39-4	0.0831 JB	0.0163	5.44	1
11031	1234789-HpCDF	55673-89-7	0.0335 JB	0.0266	5.44	1
11031	OCDF	39001-02-0	0.140 JB	0.0594	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	42	26 - 152
13C12-123678-HxCDF	53	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445482
LLI Group # 1272535
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

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SD016 SDG#: DX150-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Page 4 of 4

Sample Description: SL-016-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445482
LLI Group # 1272535
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General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11300001	10/27/2011 09:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/01/11 at 12:50 PM

Group Number: 1272535

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11301162401B Moisture Content by 160.3	Sample number(s): 6445474-6445482				99		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11300001	Sample number(s): 6445474-6445482								
2378-TCDD	0.0422 U	0.0422	1.00	ng/kg	107		67-158		
12378-PeCDD	0.0804 J	0.0346	5.00	ng/kg	105		70-142		
123478-HxCDD	0.0345 J	0.0262	5.00	ng/kg	97		70-164		
123678-HxCDD	0.0438 J	0.0267	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0427 J	0.0259	5.00	ng/kg	101		64-162		
1234678-HpCDD	0.295 J	0.0295	5.00	ng/kg	97		70-140		
OCDD	0.493 J	0.0380	10.0	ng/kg	96		78-144		
2378-TCDF	0.0353 U	0.0353	1.00	ng/kg	103		75-158		
12378-PeCDF	0.0458 J	0.0185	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0744 J	0.0187	5.00	ng/kg	96		68-160		
123478-HxCDF	0.0234 U	0.0234	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0512 J	0.0189	5.00	ng/kg	97		84-130		
123789-HxCDF	0.0857 J	0.0250	5.00	ng/kg	99		78-130		
234678-HxCDF	0.0555 J	0.0210	5.00	ng/kg	94		70-156		
1234678-HpCDF	0.128 J	0.0153	5.00	ng/kg	90		82-122		
1234789-HpCDF	0.0489 J	0.0291	5.00	ng/kg	96		78-138		
OCDF	0.188 J	0.0680	10.0	ng/kg	96		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11301162401B Moisture Content by 160.3	Sample number(s): 6445474-6445482					BKG: P445471 8.8	8.8	0	20
Batch number: 11300001	Sample number(s): 6445474-6445482					UNSPK: P437220			
2378-TCDD	103	109	67-158	2	25				
12378-PeCDD	101	102	70-142	3	25				
123478-HxCDD	99	96	70-164	6	25				
123678-HxCDD	92	93	76-134	3	25				
123789-HxCDD	101	101	64-162	3	25				
1234678-HpCDD	96	98	70-140	2	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/01/11 at 12:50 PM

Group Number: 1272535

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>
OCDD	94	95	78-144	2	25				
2378-TCDF	98	94	75-158	8	25				
12378-PeCDF	99	100	80-134	2	25				
23478-PeCDF	95	94	68-160	5	25				
123478-HxCDF	97	96	72-134	4	25				
123678-HxCDF	96	97	84-130	3	25				
123789-HxCDF	99	99	78-130	4	25				
234678-HxCDF	95	96	70-156	3	25				
1234678-HpCDF	89	89	82-122	3	25				
1234789-HpCDF	95	94	78-138	5	25				
OCDF	96	95	63-170	5	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11300001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6445474	72	63	57	68	70	62
6445475	78	70	56	72	79	68
6445476	74	67	58	72	69	60
6445477	72	64	46	60	69	60
6445478	69	62	45	61	65	56
6445479	67	58	47	62	61	52
6445480	64	59	41	52	61	54
6445481	84	81	58	72	79	67
6445482	68	67	42	53	65	58
Blank	58	52	46	57	53	52
MS	78	72	72	81	81	73
MSD	71	67	64	72	72	67
OPR	63	57	56	65	59	59
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6445474	78	55	55	69	79	80
6445475	91	61	60	78	89	92
6445476	84	54	52	73	81	81
6445477	75	55	56	73	81	82
6445478	79	50	48	71	80	78
6445479	82	47	45	69	73	76
6445480	68	48	45	67	72	74
6445481	93	61	54	90	94	94
6445482	72	54	47	75	76	78
Blank	69	45	42	59	62	65
MS	95	68	68	79	90	92

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/01/11 at 12:50 PM

Group Number: 1272535

Surrogate Quality Control

MSD	84	58	52	73	82	81
OPR	80	53	51	65	72	72
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6445474	76	74	77	68	73	
6445475	88	85	85	73	81	
6445476	79	78	77	70	78	
6445477	80	79	81	68	77	
6445478	78	76	76	63	72	
6445479	73	74	73	59	71	
6445480	73	72	70	59	69	
6445481	92	90	86	77	94	
6445482	77	78	72	63	75	
Blank	63	65	62	52	59	
MS	89	88	88	74	82	
MSD	80	79	76	69	75	
OPR	71	74	70	56	65	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

CHAIN OF CUSTODY RECORD

CDM						SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS								SECONDARY FOR ALL LOCATIONS								
NOTES: **Primary Analyses as Indicated on sample labels **Secondary Analyses as Indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																												
Samplers Signatures:																												
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	**Metals EPA 9010/8202/8203/4171A	**Fluoride EPA 300.0	**SVOCs EPA 8270C & PAHs 8270 SIM	**PCBs/PCTs EPA 8062	**Dioxin/Furan EPA 1613B	**Pesticides EPA 314.0	**Hex Chlorine EPA 7199	**PH EPA 8060/9040B	Pesticicide Confirmation by EPA 8850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NOMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 8012B	**Tetraphenyl EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Deionized EPA 8270	Other Instructions and Notes		
SL-023-SA7-SB-2.5	10.20.11	0915	SOIL	NONE	2-Encores										X													
SL-023-SA7-SB-2.0-3.0	10.20.11	0918	SOIL	NONE	1-SS Sleeve			X	X																			
SL-023-SA7-SB-2.0-3.0	10.20.11	0918	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X			X	X	X	X					
SL-060-SA7-SB-3.0	10.20.11	1100	SOIL	NONE	2-Encores										X													
SL-060-SA7-SB-2.5-3.5	10.20.11	1105	SOIL	NONE	1-SS Sleeve			X	X																			
SL-060-SA7-SB-2.5-3.5	10.20.11	1105	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X			X	X	X	X					
SL-069-SA7-SB-3.0	10.20.11	1520	SOIL	NONE	2-Encores										X													
SL-069-SA7-SB-2.5-3.5	10.20.11	1523	SOIL	NONE	1-SS Sleeve			X	X																			
SL-069-SA7-SB-2.5-3.5	10.20.11	1523	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X			X	X	X	X					
SL-148-SA7-SB-0.0-1.0	10.20.11	1423	SOIL	NONE	1-SS Sleeve			X	X																			
SL-148-SA7-SB-0.0-1.0	10.20.11	1423	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X			X	X	X	X					
SL-026-SA5DS-SB-4.0-5.0	10.20.11	1237	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X														
SL-026-SA5DS-SB-9.0-10.0	10.20.11	1155	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X															
SL-040-SA5DS-SB-4.0-5.0	10.20.11	1001	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X															
SL-040-SA5DS-SB-9.0-10.0	10.20.11	0920	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X															
SL-016-SA8S-SB-4.0-5.0	10.20.11	1508	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X															
EB-SA5DS-SB-102011	10.20.11	1400	WATER	NONE	1-1 L Amber													X						HGL ASTM # WATER-DTP crew				
TB-1012011	10.20.11	0800	WATER	NONE	2-40 mL Vials										X													
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)																				Laboratory:						
	10/20/2011 / 1630																					Lancaster Laboratories, Inc.						
Received by: (Signature)	Date/Time	Airbill No(s)																										
		8767 9858 7618,7629																										

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 08, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/09/2011

Group Number: 1275478

SDG: DE282

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-010-SA5DS-SB-2.0-3.0 Soil
SL-019-SA5DS-SB-2.0-3.0 Soil
EB-SA5DS-SB-110811 Water
TB-110811 Water
TB-110811 Sand
TB-110811 WaterLancaster Labs (LLI) #6463908
6463909
6463910
6463911
6463912
6463913

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Matthew E. Barton
Senior Specialist



Analysis Report

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Page 1 of 7

Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463908
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8201 SDG#: DE282-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	18.4 U	18.4	36.8		1
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190		1
04688	4-Chloroaniline	106-47-8	74	U 74	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	37	U 37	190		1
04688	4-Methylphenol	106-44-5	37	U 37	190		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	37	U 37	190		1
04688	4-Nitroaniline	100-01-6	74	U 74	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1

*=This limit was used in the evaluation of the final result

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Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463908
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8201 SDG#: DE282-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	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
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.9		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.74	U 0.74	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20		1
10138	Chrysene	218-01-9	0.37	U 0.37	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.9		1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	10	J 6.7	20		1
10138	Fluoranthene	206-44-0	0.74	U 0.74	1.9		1
10138	Fluorene	86-73-7	0.74	U 0.74	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.9		1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.7	U 6.7	20		1
10138	Phenanthrene	85-01-8	0.74	U 0.74	1.9		1
10138	Pyrene	129-00-0	0.74	U 0.74	1.9		1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.4	U 0.4	2.2		48.45
Explosives	SW-846 8330A		ug/kg	ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	67	U 67	130	1000000 0	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	45	U 45	130	1000000 0	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	89	U 89	270	1000000 0	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463908
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8201 SDG#: DE282-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/kg	ug/kg	ug/kg	ug/kg	
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	89 U	89	270	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	45 U	45	130	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	45 U	45	130	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	45 U	45	130	10000000	1
10132	HMX	2691-41-0	110 U	110	330	10000000	1
10132	Nitrobenzene	98-95-3	45 U	45	130	10000000	1
10132	Nitroglycerin	55-63-0	890 U	890	2,700	10000000	1
10132	2-Nitrotoluene	88-72-2	89 U	89	130	10000000	1
10132	3-Nitrotoluene	99-08-1	110 U	110	130	10000000	1
10132	4-Nitrotoluene	99-99-0	89 U	89	130	10000000	1
10132	PETN	78-11-5	890 U	890	2,700	10000000	1
10132	RDX	121-82-4	56 U	56	130	10000000	1
10132	Tetryl	479-45-8	68 U	68	130	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	45 U	45	130	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	45 U	45	130	10000000	1
HPLC Organics		SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	670 U	670	1,700		1
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	

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Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463908
LLI Group # 1275478
Account # 13013

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Suite 210

Chantilly VA 20151

E8201 SDG#: DE282-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110	U	110	560		1
10501	Isopropanol	67-63-0	110	U	110	560		1
10501	Methanol	67-56-1	110	U	110	560		1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.6	U	5.6	11		1
08283	Ethylene glycol	107-21-1	5.6	U	5.6	11		1
08283	Propylene glycol	57-55-6	5.6	U	5.6	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.7	U	1.7	3.9		1
10318	o-Terphenyl	84-15-1	1.7	U	1.7	3.9		1
10318	p-Terphenyl	92-94-4	1.7	U	1.7	3.9		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.45	U	0.45	1.3		1
10199	EFH (C15-C20)	n.a.	0.45	U	0.45	1.3		1
10199	EFH (C21-C30)	n.a.	0.45	U	0.45	1.3		1
10199	EFH (C30 - C40)	n.a.	1.6		0.45	1.3		1
10199	EFH (C8-C11)	n.a.	0.45	U	0.45	1.3		1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,100		6.61	21.9		1
07914	Boron	7440-42-8	5.84		0.393	5.46		1
01650	Calcium	7440-70-2	3,440		2.73	21.9		1
01654	Iron	7439-89-6	24,400		2.85	21.9		1
01656	Lithium	7439-93-2	17.8		0.68	2.2		1
01657	Magnesium	7439-95-4	5,660		0.481	10.9		1
06958	Manganese	7439-96-5	164		0.0393	0.546		1
10145	Phosphorus	7723-14-0	661		0.383	10.9		1
01662	Potassium	7440-09-7	1,210		12.4	54.6		1
01667	Sodium	7440-23-5	123		6.50	109		1
07968	Strontium	7440-24-6	19.8		0.0273	0.546		1
06969	Tin	7440-31-5	3.04	J	0.350	10.9		1
06970	Titanium	7440-32-6	1,050		0.0776	1.09		1
10146	Zirconium	7440-67-7	15.0		0.503	5.46		1
		SW-846 6020	mg/kg		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.160	J	0.0817	0.221		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	6.23		0.0883	0.442		2
06126	Barium	7440-39-3	38.2		0.117	0.442		2

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Analysis Report

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Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463908
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

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14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8201 SDG#: DE282-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	0.469	0.0177	0.110		2
06128	Cadmium	7440-43-9	0.0665 J	0.0486	0.110		2
06131	Chromium	7440-47-3	36.8	0.132	0.442		2
06132	Cobalt	7440-48-4	3.85	0.0221	0.110		2
06133	Copper	7440-50-8	3.98	0.0883	0.442		2
06135	Lead	7439-92-1	5.17	0.0113	0.221		2
06138	Molybdenum	7439-98-7	0.196	0.0552	0.110		2
06139	Nickel	7440-02-0	10.4	0.110	0.442		2
06141	Selenium	7782-49-2	0.203 J	0.0640	0.442		2
06142	Silver	7440-22-4	0.0165 J	0.0157	0.110		2
06145	Thallium	7440-28-0	0.101 J	0.0331	0.110		2
06148	Vanadium	7440-62-2	66.2	0.0243	0.110		2
06149	Zinc	7440-66-6	42.9	0.618	3.31		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0091 J	0.0077	0.109		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.6	0.90	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	3.6	0.90	1.7		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.47 J	0.22	1.1		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.54		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.06	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.3	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

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Analysis Report

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Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463908
LLI Group # 1275478
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14420 Albemarle Point Place

Submitted: 11/09/2011 09:35

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Reported: 12/08/2011 19:56

Chantilly VA 20151

E8201 SDG#: DE282-01

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-010-SA5DS-SB-2.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11320SLG026	12/03/2011 04:48	Matthew S Woods	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11318SLA026	11/27/2011 05:53	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11318SLB026	11/29/2011 13:42	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11320SLG026	11/17/2011 07:00	Joseph S Feister	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11318SLB026	11/14/2011 18:10	Sally L Appleyard	1
00381	BNA Soil Sonication	SW-846 3550B	1	11318SLA026	11/14/2011 18:30	Sally L Appleyard	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11313A16A	11/10/2011 01:28	Marie D John	48.45
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201131326138	11/09/2011 16:19	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201131326138	11/09/2011 16:20	Lois E Hiltz	n.a.
10132	15a Energetics by 8330A	SW-846 8330A	1	113190001A	11/19/2011 06:22	James H Place	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	113180003A	11/16/2011 15:44	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/16/2011 08:58	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011 16:00	JoElla L Rice	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	113180003A	11/14/2011 14:00	Wanda F Oswald	1
11137	Energetics Extraction	SW-846 8330	1	113190001A	11/15/2011 14:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	113130024A	11/11/2011 01:38	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	113200029A	11/16/2011 22:48	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	113180012A	11/15/2011 15:34	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113190011A	11/17/2011 20:22	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113190011A	11/15/2011 16:15	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	113180012A	11/14/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	113130024A	11/10/2011 19:00	Lei Yin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	113200029A	11/16/2011 16:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 7 of 7

Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463908
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8201 SDG#: DE282-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011 05:59	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011 22:51	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 22:51	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 22:51	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 22:51	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:06	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11314621201A	11/11/2011 14:52	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11314621201A	11/11/2011 14:52	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11314621202A	11/10/2011 12:04	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11322243201A	11/19/2011 10:29	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11320102202A	11/17/2011 08:47	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11314621201A	11/10/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11314621202A	11/10/2011 07:45	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11320102202A	11/16/2011 15:00	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401A	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Page 1 of 7

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463909
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8202 SDG#: DE282-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	18.0 U	18.0	36.1		1
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463909
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8202 SDG#: DE282-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
	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
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	ug/kg	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.72	U 0.72	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.72	U 0.72	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.72	U 0.72	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.72	U 0.72	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.72	U 0.72	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	19		1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	19		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.72	U 0.72	1.8		1
10138	Diethylphthalate	84-66-2	6.5	U 6.5	19		1
10138	Dimethylphthalate	131-11-3	6.5	U 6.5	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J 6.5	19		1
10138	Fluoranthene	206-44-0	0.72	U 0.72	1.8		1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8		1
10138	Naphthalene	91-20-3	0.72	U 0.72	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.5	U 6.5	19		1
10138	Phenanthrene	85-01-8	0.72	U 0.72	1.8		1
10138	Pyrene	129-00-0	0.72	U 0.72	1.8		1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.2		28.54
Explosives	SW-846 8330A		ug/kg	ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	62	U 62	120	1000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	42	U 42	120	1000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	83	U 83	250	1000000	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463909
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8202 SDG#: DE282-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/kg	ug/kg	ug/kg	ug/kg	
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	83 U	83	250	1000000 0	1
10132	1,3-Dinitrobenzene	99-65-0	42 U	42	120	1000000 0	1
10132	2,4-Dinitrotoluene	121-14-2	42 U	42	120	1000000 0	1
10132	2,6-Dinitrotoluene	606-20-2	42 U	42	120	1000000 0	1
10132	HMX	2691-41-0	100 U	100	310	1000000 0	1
10132	Nitrobenzene	98-95-3	42 U	42	120	1000000 0	1
10132	Nitroglycerin	55-63-0	830 U	830	2,500	1000000 0	1
10132	2-Nitrotoluene	88-72-2	83 U	83	120	1000000 0	1
10132	3-Nitrotoluene	99-08-1	100 U	100	120	1000000 0	1
10132	4-Nitrotoluene	99-99-0	83 U	83	120	1000000 0	1
10132	PETN	78-11-5	830 U	830	2,500	1000000 0	1
10132	RDX	121-82-4	52 U	52	120	1000000 0	1
10132	Tetryl	479-45-8	64 U	64	120	1000000 0	1
10132	1,3,5-Trinitrobenzene	99-35-4	42 U	42	120	1000000 0	1
10132	2,4,6-Trinitrotoluene	118-96-7	42 U	42	120	1000000 0	1
HPLC Organics		SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	650 U	650	1,600		1
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8		1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8		1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8		1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8		1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8		1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463909
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/09/2011 09:35

Suite 210

Reported: 12/08/2011 19:56

Chantilly VA 20151

E8202 SDG#: DE282-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110	U	110	540		1
10501	Isopropanol	67-63-0	110	U	110	540		1
10501	Methanol	67-56-1	110	U	110	540		1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4	U	5.4	11		1
08283	Ethylene glycol	107-21-1	5.4	U	5.4	11		1
08283	Propylene glycol	57-55-6	5.4	U	5.4	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.43	U	0.43	1.3		1
10199	EFH (C15-C20)	n.a.	0.43	U	0.43	1.3		1
10199	EFH (C21-C30)	n.a.	1.2	J	0.43	1.3		1
10199	EFH (C30 - C40)	n.a.	5.0		0.43	1.3		1
10199	EFH (C8-C11)	n.a.	0.43	U	0.43	1.3		1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,700		6.48	21.4		1
07914	Boron	7440-42-8	6.03		0.386	5.36		1
01650	Calcium	7440-70-2	3,250		2.68	21.4		1
01654	Iron	7439-89-6	26,200		2.80	21.4		1
01656	Lithium	7439-93-2	17.8		0.66	2.1		1
01657	Magnesium	7439-95-4	5,850		0.471	10.7		1
06958	Manganese	7439-96-5	238		0.0386	0.536		1
10145	Phosphorus	7723-14-0	536		0.375	10.7		1
01662	Potassium	7440-09-7	1,160		12.1	53.6		1
01667	Sodium	7440-23-5	117		6.38	107		1
07968	Strontium	7440-24-6	20.7		0.0268	0.536		1
06969	Tin	7440-31-5	2.96	J	0.343	10.7		1
06970	Titanium	7440-32-6	1,030		0.0761	1.07		1
10146	Zirconium	7440-67-7	13.5		0.493	5.36		1
		SW-846 6020	mg/kg		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0982	J	0.0770	0.208		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	5.83		0.0833	0.416		2
06126	Barium	7440-39-3	47.4		0.110	0.416		2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463909
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8202 SDG#: DE282-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	0.534	0.0167	0.104		2
06128	Cadmium	7440-43-9	0.0667 J	0.0458	0.104		2
06131	Chromium	7440-47-3	36.3	0.125	0.416		2
06132	Cobalt	7440-48-4	4.49	0.0208	0.104		2
06133	Copper	7440-50-8	3.83	0.0833	0.416		2
06135	Lead	7439-92-1	4.57	0.0106	0.208		2
06138	Molybdenum	7439-98-7	0.218	0.0520	0.104		2
06139	Nickel	7440-02-0	9.74	0.104	0.416		2
06141	Selenium	7782-49-2	0.124 J	0.0604	0.416		2
06142	Silver	7440-22-4	0.0148 U	0.0148	0.104		2
06145	Thallium	7440-28-0	0.124	0.0312	0.104		2
06148	Vanadium	7440-62-2	64.3	0.0229	0.104		2
06149	Zinc	7440-66-6	44.0	0.583	3.12		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.106		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.1	0.85	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	3.2	0.85	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.5		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.64 J	0.22	1.1		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.54		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.12	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.6	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463909
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8202 SDG#: DE282-02

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-019-SA5DS-SB-2.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11320SLG026	12/03/2011 05:44	Matthew S Woods	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11318SLA026	11/27/2011 06:18	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11318SLB026	11/29/2011 14:15	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11320SLG026	11/17/2011 07:00	Joseph S Feister	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11318SLB026	11/14/2011 18:10	Sally L Appleyard	1
00381	BNA Soil Sonication	SW-846 3550B	1	11318SLA026	11/14/2011 18:30	Sally L Appleyard	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11313A16A	11/10/2011 02:05	Marie D John	28.54
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201131326138	11/09/2011 16:21	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201131326138	11/09/2011 16:21	Lois E Hiltz	n.a.
10132	15a Energetics by 8330A	SW-846 8330A	1	113190001A	11/19/2011 07:04	James H Place	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	113180003A	11/16/2011 15:54	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/16/2011 09:17	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011 16:00	JoElla L Rice	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	113180003A	11/14/2011 14:00	Wanda F Oswald	1
11137	Energetics Extraction	SW-846 8330	1	113190001A	11/15/2011 14:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	113130024A	11/11/2011 01:55	Elizabeth J Marin	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	113130024A	11/11/2011 18:52	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	113200029A	11/16/2011 23:03	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	113180012A	11/15/2011 15:56	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113190011A	11/17/2011 20:46	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113190011A	11/15/2011 16:15	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	113180012A	11/14/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	113130024A	11/10/2011 19:00	Lei Yin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	113200029A	11/16/2011 16:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463909
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8202 SDG#: DE282-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011 06:10	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011 22:54	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 22:54	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 22:54	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 22:54	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:07	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11314621201A	11/11/2011 15:36	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11314621201A	11/11/2011 15:36	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11314621202A	11/10/2011 13:07	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11322243201A	11/19/2011 10:35	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11320102202A	11/17/2011 08:50	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11314621201A	11/10/2011 07:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11314621202A	11/10/2011 07:45	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11320102202A	11/16/2011 15:00	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: EB-SA5DS-SB-110811 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6463910
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:10

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8203 SDG#: DE282-03EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	1.57	0.486	0.972		1
The surrogate recovery of n-nitrosodimethylamine-d6 was above the advisory QC limits in this sample. No further action was taken.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11316WAD026	11/17/2011 07:58	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11316WAD026	11/14/2011 05:30	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 1

Sample Description: TB-110811 Water
SSFL Area IV Collocated Soil Sampling
TB

LLI Sample # WW 6463911
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 08:00

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8204 SDG#: DE282-04TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.477 U	0.477	0.954		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11316WAD026	11/17/2011 08:22	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11316WAD026	11/14/2011 05:30	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 1

Sample Description: TB-110811 Sand
SSFL Area IV Collocated Soil Sampling
TB

LLI Sample # SW 6463912
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/09/2011 09:35

Suite 210

Reported: 12/08/2011 19:56

Chantilly VA 20151

E8205 SDG#: DE282-05TB

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles	EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	16.5 U	16.5	33.0		1
Wet Chemistry	EPA 160.3 modified		%	%	%	%	
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11320SLG026	12/03/2011 06:03	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	1	11320SLG026	11/17/2011 07:00	Joseph S Feister	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11315162401B	11/11/2011 22:24	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-110811 Water
SSFL Area IV Collocated Soil Sampling
TB

LLI Sample # WW 6463913
LLI Group # 1275478
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 08:00

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8206 SDG#: DE282-06TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11318B20A	11/15/2011 13:02	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11318B20A	11/15/2011 13:02	Marie D John	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11316WAD026 N-Nitrosodimethylamine	Sample number(s): 6463910-6463911 0.500 U	0.500	1.00	ng/l	97	91	70-130	6	30
Batch number: 11318SLA026 Aniline	Sample number(s): 6463908-6463909 170 U	170.	500	ug/kg	71		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	50		15-121		
Benzoic acid	170 U	170.	500	ug/kg	82		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	89		68-111		
4-Bromophenyl-phenylether	17 U	U	17.	ug/kg	95		73-114		
Carbazole	17 U	U	17.	ug/kg	92		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	96		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	40		10-110		
bis(2-Chloroethoxy)methane	17 U	U	17.	ug/kg	93		70-118		
bis(2-Chloroethyl) ether	17 U	U	17.	ug/kg	87		70-104		
bis(2-Chloroisopropyl) ether	17 U	U	17.	ug/kg	90		62-115		
2-Chloronaphthalene	17 U	U	17.	ug/kg	93		49-128		
2-Chlorophenol	17 U	U	17.	ug/kg	95		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	94		74-115		
Dibenzofuran	17 U	U	17.	ug/kg	91		74-116		
1,2-Dichlorobenzene	17 U	U	17.	ug/kg	86		74-99		
1,3-Dichlorobenzene	17 U	U	17.	ug/kg	84		70-98		
1,4-Dichlorobenzene	17 U	U	17.	ug/kg	85		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	38		10-116		
2,4-Dichlorophenol	17 U	U	17.	ug/kg	97		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	95		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	94		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	71		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	50		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	95		73-115		
2,6-Dinitrotoluene	17 U	U	17.	ug/kg	98		79-115		
1,2-Diphenylhydrazine	17 U	U	17.	ug/kg	95		71-125		
Hexachlorobenzene	17 U	U	17.	ug/kg	95		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	87		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	79		46-115		
Hexachloroethane	17 U	U	17.	ug/kg	81		61-109		
Isophorone	17 U	U	17.	ug/kg	92		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	96		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	94		66-117		

*- 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: 12/08/11 at 07:56 PM

Group Number: 1275478

<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>
2-Nitroaniline	17	U	17.	170	ug/kg	91		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	89		62-109		
4-Nitroaniline	67	U	67.	170	ug/kg	70		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	91		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	88		76-111		
4-Nitrophenol	170		170.	500	ug/kg	80		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	84		63-107		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	97		67-141		
Pentachlorophenol	170		170.	500	ug/kg	85		51-117		
	U									
Phenol	17	U	17.	170	ug/kg	98		58-112		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	90		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	92		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	94		78-111		
Batch number: 11318SLB026	Sample number(s): 6463908-6463909									
Acenaphthene	0.67	U	0.67	1.7	ug/kg	97		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	99		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	100		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	100		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	99		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	101		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	107		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	100		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	105		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	123		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	101		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	105		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	117		68-125		
Dimethylphthalate	6.0	U	6.0	18	ug/kg	109		79-121		
Bis(2-Ethylhexyl)phthalate	6.0	U	6.0	18	ug/kg	119		67-143		
Fluoranthene	0.67	U	0.67	1.7	ug/kg	102		64-120		
Fluorene	0.67	U	0.67	1.7	ug/kg	105		71-120		
Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.7	ug/kg	105		56-134		
1-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	94		72-120		
2-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	93		62-120		
Naphthalene	0.67	U	0.67	1.7	ug/kg	96		67-120		
N-Nitrosodimethylamine	0.67	U	0.67	1.7	ug/kg	90		55-118		
Di-n-octylphthalate	6.0	U	6.0	18	ug/kg	96		68-162		
Phenanthrene	0.67	U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67	U	0.67	1.7	ug/kg	97		72-119		
Batch number: 11320SLG026	Sample number(s): 6463908-6463909, 6463912									
N-Nitrosodimethylamine	16.7	U	16.7	33.3	ng/kg	82		70-130		
Batch number: 11313A16A	Sample number(s): 6463908-6463909									
9a TPH by EPA 8015B Gas C5-C12	0.2	U	0.2	1.0	mg/kg	78	87	67-119	10	30
Batch number: 11318B20A	Sample number(s): 6463913									
TPH-GRO S.CA water C5-C12	20	U	20.	50	ug/l	100	100	75-135	0	30
Batch number: 113190001A	Sample number(s): 6463908-6463909									
4-Amino-2,6-Dinitrotoluene	60	U	60.	120	ug/kg	107		80-120		
2-Amino-4,6-Dinitrotoluene	40	U	40.	120	ug/kg	106		80-120		
2,6-Diamino-4-nitrotoluene	80	U	80.	240	ug/kg	96	90	54-134	6	30
2,4-Diamino-6-nitrotoluene	80	U	80.	240	ug/kg	96	90	54-134	6	30
1,3-Dinitrobenzene	40	U	40.	120	ug/kg	110		51-171		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

<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>
2,4-Dinitrotoluene	40	U	40.	120	ug/kg	102		72-135		
2,6-Dinitrotoluene	40	U	40.	120	ug/kg	103		80-120		
HMX	100		100.	300	ug/kg	91		74-130		
	U									
Nitrobenzene	40	U	40.	120	ug/kg	94		80-120		
Nitroglycerin	800		800.	2,400	ug/kg	96		80-120		
	U									
2-Nitrotoluene	80	U	80.	120	ug/kg	102		78-128		
3-Nitrotoluene	100		100.	120	ug/kg	106		73-127		
	U									
4-Nitrotoluene	80	U	80.	120	ug/kg	99		80-120		
PETN	800		800.	2,400	ug/kg	104		80-120		
	U									
RDX	50	U	50.	120	ug/kg	103		75-131		
Tetryl	61	U	61.	120	ug/kg	130		70-168		
1,3,5-Trinitrobenzene	40	U	40.	120	ug/kg	104		77-137		
2,4,6-Trinitrotoluene	40	U	40.	120	ug/kg	109		80-120		
Batch number: 113180003A	Sample number(s): 6463908-6463909									
20a Formaldehyde 8315A	600		600.	1,500	ug/kg	99		80-126		
	U									
Batch number: 113150020A	Sample number(s): 6463908-6463909									
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	71	71	36-106	0	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	79		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	86		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: 113130024A	Sample number(s): 6463908-6463909									
Ethanol	100		100.	500	ug/kg	100		71-129		
	U									
Isopropanol	100		100.	500	ug/kg	96		75-125		
	U									
Methanol	100		100.	500	ug/kg	102		68-129		
	U									
Batch number: 113200029A	Sample number(s): 6463908-6463909									
Diethylene glycol	5.0	U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0	U	5.0	10	mg/kg	106		53-149		
Propylene glycol	5.0	U	5.0	10	mg/kg	99		67-131		
Batch number: 113180012A	Sample number(s): 6463908-6463909									
m-Terphenyl	1.5	U	1.5	3.5	mg/kg	98		64-111		
o-Terphenyl	1.5	U	1.5	3.5	mg/kg	99		75-125		
p-Terphenyl	1.5	U	1.5	3.5	mg/kg	98		69-109		
Batch number: 113190011A	Sample number(s): 6463908-6463909									
EFH (C12-C14)	0.40	U	0.40	1.2	mg/kg	101		70-123		
EFH (C15-C20)	0.40	U	0.40	1.2	mg/kg	108		75-128		
EFH (C21-C30)	0.40	U	0.40	1.2	mg/kg	105		64-134		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

<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>
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	115		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	89		49-107		
Batch number: 113141026003A	Sample number(s): 6463908-6463909								
Antimony	0.0733 U	0.0733	0.198	mg/kg	73		40-227		
Arsenic	0.0792 U	0.0792	0.396	mg/kg	99		83-111		
Beryllium	0.0158 U	0.0158	0.0990	mg/kg	100		84-112		
Cadmium	0.0436 U	0.0436	0.0990	mg/kg	98		83-111		
Chromium	0.119 U	0.119	0.396	mg/kg	112		77-123		
Cobalt	0.0198 U	0.0198	0.0990	mg/kg	100		85-114		
Copper	0.0792 U	0.0792	0.396	mg/kg	98		81-110		
Lead	0.0859 J	0.0101	0.198	mg/kg	103		84-112		
Nickel	0.0990 U	0.0990	0.396	mg/kg	99		81-110		
Silver	0.0141 U	0.0141	0.0990	mg/kg	101		83-112		
Thallium	0.0297 U	0.0297	0.0990	mg/kg	102		82-112		
Vanadium	0.0218 U	0.0218	0.0990	mg/kg	101		76-110		
Zinc	1.10 J	0.554	2.97	mg/kg	97		82-110		
Batch number: 113141026003B	Sample number(s): 6463908-6463909								
Selenium	0.0574 U	0.0574	0.396	mg/kg	96		79-110		
Batch number: 113141026003C	Sample number(s): 6463908-6463909								
Molybdenum	0.0495 U	0.0495	0.0990	mg/kg	100		80-110		
Batch number: 113141026003D	Sample number(s): 6463908-6463909								
Barium	0.105 U	0.105	0.396	mg/kg	102		83-110		
Batch number: 113145708007	Sample number(s): 6463908-6463909								
Aluminum	5.99 U	5.99	19.8	mg/kg	83		40-127		
Boron	0.356 U	0.356	4.95	mg/kg	101		83-110		
Calcium	3.80 J	2.48	19.8	mg/kg	98		81-110		
Iron	2.81 J	2.58	19.8	mg/kg	85		47-129		
Lithium	0.61 U	0.61	2.0	mg/kg	107		80-120		
Magnesium	0.436 U	0.436	9.90	mg/kg	89		63-116		
Manganese	0.0356 U	0.0356	0.495	mg/kg	96		85-116		
Phosphorus	1.17 J	0.347	9.90	mg/kg	107		80-120		
Potassium	11.2 U	11.2	49.5	mg/kg	99		71-110		
Sodium	5.89 U	5.89	99.0	mg/kg	100		76-110		
Strontium	0.0248 U	0.0248	0.495	mg/kg	99		84-110		
Tin	1.42 J	0.317	9.90	mg/kg	94		86-120		
Titanium	0.0703 U	0.0703	0.990	mg/kg	82		80-120		
Zirconium	0.455 U	0.455	4.95	mg/kg	104		80-120		
Batch number: 113145711002	Sample number(s): 6463908-6463909								
Mercury	0.0069 U	0.0069	0.0985	mg/kg	104		83-119		
Batch number: 11314621201A	Sample number(s): 6463908-6463909								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	108		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	104		90-110		
Batch number: 11314621202A	Sample number(s): 6463908-6463909								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	110		85-115		
Batch number: 11320102202A	Sample number(s): 6463908-6463909								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	92		80-120		
Batch number: 11322243201A	Sample number(s): 6463908-6463909								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	85		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

<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: 11319039401A 17a pH by 9045C	Sample number(s): 6463908				100		95-105		
Batch number: 11319039401B 17a pH by 9045C	Sample number(s): 6463909				100		95-105		
Batch number: 11315162401B Moisture Content by 160.3	Sample number(s): 6463912				100		80-120		
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6463908-6463909				99		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11318SLA026	Sample number(s): 6463908-6463909 UNSPK: P461454								
Aniline	53	73	18-116	32*	30				
Benzidine	0*	0*	35-141	0	30				
Benzoic acid	42	50	10-173	18	30				
Benzyl alcohol	89	98	67-115	9	30				
4-Bromophenyl-phenylether	91	100	67-129	10	30				
Carbazole	87	96	64-120	10	30				
4-Chloro-3-methylphenol	92	100	62-122	8	30				
4-Chloroaniline	37	68	13-107	58*	30				
bis(2-Chloroethoxy)methane	86	96	75-104	10	30				
bis(2-Chloroethyl)ether	83	92	60-116	10	30				
bis(2-Chloroisopropyl)ether	87	96	55-142	9	30				
2-Chloronaphthalene	88	93	50-141	6	30				
2-Chlorophenol	94	104	73-121	10	30				
4-Chlorophenyl-phenylether	91	99	80-109	9	30				
Dibenzofuran	88	96	71-112	8	30				
1,2-Dichlorobenzene	83	88	66-108	6	30				
1,3-Dichlorobenzene	80	87	63-109	8	30				
1,4-Dichlorobenzene	82	88	58-108	7	30				
3,3'-Dichlorobenzidine	46	64	28-109	33*	30				
2,4-Dichlorophenol	93	104	66-123	10	30				
2,4-Dimethylphenol	91	100	68-118	9	30				
3,5-Dimethylphenol	88	97	71-127	9	30				
4,6-Dinitro-2-methylphenol	52	60	11-126	14	30				
2,4-Dinitrophenol	30	34	20-143	14	30				
2,4-Dinitrotoluene	90	97	56-129	7	30				
2,6-Dinitrotoluene	93	101	69-123	9	30				
1,2-Diphenylhydrazine	91	103	71-129	12	30				
Hexachlorobenzene	90	102	77-114	12	30				
Hexachlorobutadiene	84	91	62-120	8	30				
Hexachlorocyclopentadiene	76	86	10-153	12	30				
Hexachloroethane	79	85	57-109	7	30				
Isophorone	86	94	73-102	9	30				
2-Methylphenol	93	104	75-111	11	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

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	92	102	59-123	10	30				
2-Nitroaniline	90	99	67-125	10	30				
3-Nitroaniline	84	95	59-122	12	30				
4-Nitroaniline	65	79	41-109	19	30				
Nitrobenzene	86	94	57-125	8	30				
2-Nitrophenol	88	96	56-127	9	30				
4-Nitrophenol	77	85	37-129	9	30				
N-Nitroso-di-n-propylamine	81	89	60-116	10	30				
N-Nitrosodiphenylamine	91	102	71-122	11	30				
Pentachlorophenol	70	75	28-127	6	30				
Phenol	94	104	58-126	10	30				
1,2,4-Trichlorobenzene	85	92	72-115	8	30				
2,4,5-Trichlorophenol	90	100	58-129	10	30				
2,4,6-Trichlorophenol	93	102	56-134	9	30				

Batch number: 11318SLB026 Sample number(s): 6463908-6463909 UNSPK: P462616

Acenaphthene	97	93	63-105	4	30
Acenaphthylene	96	96	67-114	0	30
Anthracene	96	99	73-115	3	30
Benzo(a)anthracene	98	100	59-128	2	30
Benzo(a)pyrene	96	97	58-142	1	30
Benzo(b)fluoranthene	116	117	54-163	1	30
Benzo(g,h,i)perylene	77	77	33-141	0	30
Benzo(k)fluoranthene	91	91	57-153	0	30
Butylbenzylphthalate	105	110	57-173	5	30
Di-n-butylphthalate	105	108	65-148	2	30
Chrysene	92	95	67-123	3	30
Dibenz(a,h)anthracene	86	87	22-133	0	30
Diethylphthalate	110	113	70-136	2	30
Dimethylphthalate	100	104	74-118	4	30
Bis(2-Ethylhexyl)phthalate	64	71	39-167	5	30
Fluoranthene	101	103	51-149	2	30
Fluorene	98	98	66-122	1	30
Indeno(1,2,3-cd)pyrene	84	84	21-143	0	30
1-Methylnaphthalene	92	92	72-123	1	30
2-Methylnaphthalene	90	91	64-103	1	30
Naphthalene	93	94	61-102	2	30
N-Nitrosodimethylamine	86	84	48-113	3	30
Di-n-octylphthalate	98	98	40-192	0	30
Phenanthrene	93	96	62-122	3	30
Pyrene	89	92	51-131	3	30

Batch number: 11320SLG026 Sample number(s): 6463908-6463909,6463912 UNSPK: 6463908

Batch number: 113190001A	Sample number(s): 6463908-6463909 U				
4-Amino-2,6-Dinitrotoluene	79*	92	80-127	15	50
2-Amino-4,6-Dinitrotoluene	76*	88	80-137	15	50
1,3-Dinitrobenzene	83	93	38-166	11	50
2,4-Dinitrotoluene	76*	86	80-131	13	50
2,6-Dinitrotoluene	78*	89	80-127	13	50
HMX	63	76	63-128	19	50
Nitrobenzene	80	81	80-125	0	50

*- 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: 12/08/11 at 07:56 PM

Group Number: 1275478

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Nitroglycerin	73*	84	80-120	15	50				
2-Nitrotoluene	79*	87	80-122	9	50				
3-Nitrotoluene	83	92	72-119	10	50				
4-Nitrotoluene	78*	85	80-125	9	50				
PETN	75*	89	80-121	18	50				
RDX	70*	83	75-129	16	50				
Tetryl	75	104	55-174	33	50				
1,3,5-Trinitrobenzene	74*	86	82-126	15	50				
2,4,6-Trinitrotoluene	79*	91	82-130	14	50				
Batch number: 113180003A	Sample number(s): 6463908-6463909 UNSPK: P462617								
20a Formaldehyde 8315A	98	94	80-120	4	50				
Batch number: 113150020A	Sample number(s): 6463908-6463909 UNSPK: P465418								
PCB-1016	74	79	29-146	7	50				
PCB-1260	85	94	39-149	10	50				
Batch number: 113130024A	Sample number(s): 6463908-6463909 UNSPK: P462617								
Ethanol	98	48	48-130	68*	20				
Isopropanol	94	41	12-149	78*	20				
Methanol	98	47	43-138	70*	20				
Batch number: 113200029A	Sample number(s): 6463908-6463909 UNSPK: P461456								
Diethylene glycol	23*	22*	59-109	4	20				
Ethylene glycol	64	65	63-107	1	20				
Propylene glycol	73	73	63-107	1	20				
Batch number: 113180012A	Sample number(s): 6463908-6463909 UNSPK: P461454								
m-Terphenyl	101	100	75-125	1	20				
o-Terphenyl	102	101	75-125	1	20				
p-Terphenyl	101	100	75-125	1	20				
Batch number: 113190011A	Sample number(s): 6463908-6463909 UNSPK: P462617								
EFH (C12-C14)	85	98	49-123	14	20				
EFH (C15-C20)	99	108	49-123	8	20				
EFH (C21-C30)	102	111	49-123	9	20				
EFH (C30 - C40)	73	86	49-123	11	20				
EFH (C8-C11)	71	79	49-123	10	20				
Batch number: 113141026003A	Sample number(s): 6463908-6463909 UNSPK: P465418 BKG: P465418								
Antimony	21*	36*	75-125	33*	20	0.182 J	0.104 J	55* (1)	20
Arsenic	62*	165*	75-125	26*	20	5.20	4.27	20	20
Beryllium	68*	128*	75-125	32*	20	0.627	0.508	21*	20
Cadmium	102	144*	75-125	27*	20	0.209	0.154	30* (1)	20
Chromium	14*	159*	75-125	30*	20	37.6	32.0	16	20
Cobalt	79	111	75-125	28*	20	6.00	4.80	22*	20
Copper	88	156*	75-125	34*	20	6.89	6.12	12	20
Lead	2 (2)	218 (2)	75-125	38*	20	13.3	11.4	16	20
Nickel	80	166*	75-125	35*	20	11.2	9.94	12	20
Silver	102	141*	75-125	30*	20	0.0233 J	0.0250 J	7 (1)	20
Thallium	83	145*	75-125	35*	20	0.213	0.166	25* (1)	20
Vanadium	-27 (2)	183 (2)	75-125	29*	20	62.6	53.9	15	20
Zinc	-15 (2)	224 (2)	75-125	36*	20	54.2	48.0	12	20

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

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: 113141026003B Selenium	Sample number(s): 6463908-6463909 UNSPK: P465418 BKG: P465418 86 120 75-125 28* 20 0.260 J 0.193 J 30* (1) 20								
Batch number: 113141026003C Molybdenum	Sample number(s): 6463908-6463909 UNSPK: P465418 BKG: P465418 89 132* 75-125 36* 20 0.434 0.402 8 (1) 20								
Batch number: 113141026003D Barium	Sample number(s): 6463908-6463909 UNSPK: P465418 BKG: P465418 -36 (2) 280 (2) 75-125 36* 20 72.8 62.2 16 20								
Batch number: 113145708007 Aluminum	Sample number(s): 6463908-6463909 UNSPK: P465418 BKG: P465418 1195 1140 75-125 1 20 15,300 15,100 1 20								
Boron	(2) (2) 84-115 0 20 6.84 6.48 5 (1) 20								
Calcium	214 (2) 206 (2) 75-125 1 20 3,290 3,140 5 20								
Iron	325 (2) 375 (2) 75-125 0 20 20,900 23,100 10 20								
Lithium	100 100 82-114 1 20 17.4 17.2 1 20								
Magnesium	174 (2) 153 (2) 75-125 1 20 4,500 4,800 7 20								
Manganese	78 (2) 75 (2) 75-125 1 20 250 237 5 20								
Phosphorus	63 (2) 73 (2) 75-125 1 20 655 640 2 20								
Potassium	116 120 75-125 1 20 2,790 3,030 8 20								
Sodium	99 99 75-125 1 20 88.2 J 85.8 J 3 (1) 20								
Strontium	101 101 75-115 1 20 23.8 22.6 5 20								
Tin	83 83 80-110 1 20 2.43 J 2.42 J 1 (1) 20								
Titanium	309 (2) 353 (2) 75-125 3 20 829 822 1 20								
Zirconium	90 90 81-110 1 20 7.20 7.81 8 (1) 20								
Batch number: 113145711002 Mercury	Sample number(s): 6463908-6463909 UNSPK: P465418 BKG: P465418 87 84 65-135 5 20 0.0129 J 0.0111 J 15 (1) 20								
Batch number: 11314621201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6463908-6463909 UNSPK: 6463908 BKG: 6463908 65* 80-120 1.5 1.7 14 (1) 20								
11a Anions by 300.0 - Nitrate	94 80-120 3.2 3.8 17 (1) 20								
Batch number: 11314621202A 7a Perchlorate EPA 314.0	Sample number(s): 6463908-6463909 UNSPK: 6463908 BKG: 6463908 105 80-120 9.0 U 9.0 U 0 (1) 15								
Batch number: 11320102202A 16a Cyanide by 9012B	Sample number(s): 6463908-6463909 UNSPK: P462617 BKG: P462617 100 75-125 0.18 U 0.18 U 0 (1) 20								
Batch number: 11322243201A 3a Cr VI by EPA 7199	Sample number(s): 6463908-6463909 UNSPK: P465418 BKG: P465418 95 75-125 0.20 U 0.69 J 200* (1) 20								
Batch number: 11319039401A 17a pH by 9045C	Sample number(s): 6463908 BKG: P461454 8.53 8.53 0 3								
Batch number: 11319039401B 17a pH by 9045C	Sample number(s): 6463909 BKG: P465418 6.27 6.21 1 3								
Batch number: 11315162401B Moisture Content by 160.3	Sample number(s): 6463912 BKG: 6463912 0.50 U 0.50 U 0 (1) 20								
Batch number: 11335162401B	Sample number(s): 6463908-6463909 BKG: 6463909								

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Moisture Content by 160.3						7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 21b. NDMA in Water
Batch number: 11316WAD026
N-Nitrosodimethylamine-d6

6463910	176*
6463911	116
Blank	137
LCS	134
LCSD	140

Limits: 50-150

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11318SLA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6463908	89	92	89	83	88	85
6463909	89	92	91	83	90	88
Blank	92	95	87	85	91	87
LCS	95	97	89	85	87	84
MS	99	102	92	86	91	86
MSD	102	104	94	87	93	88

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11318SLB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6463908	96	87	92
6463909	102	92	98
Blank	114	105	118
LCS	104	94	99
MS	98	90	96
MSD	103	91	104

Limits: 40-130 45-130 45-135

Analysis Name: 21a NDMA by 1625C
Batch number: 11320SLG026
N-Nitrosodimethylamine-d6

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

Surrogate Quality Control

6463908	127
6463909	99
6463912	132
Blank	144
LCS	138
MS	125
MSD	120

Limits: 50-150

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11313A16A
Trifluorotoluene-F

6463908	85
6463909	89
Blank	97
LCS	84
LCSD	93

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11318B20A
Trifluorotoluene-F

6463913	91
Blank	92
LCS	118
LCSD	118

Limits: 63-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113150020A
Tetrachloro-m-xylene Decachlorobiphenyl

6463908	101	88
6463909	99	91
Blank	90	97
LCS	89	96
LCSD	96	102
MS	85	88
MSD	93	99

Limits: 53-139 45-120

Analysis Name: 20a Formaldehyde 8315A
Batch number: 113180003A
Butyraldehyde

6463908	78
6463909	77
Blank	95
LCS	85
MS	80

*- 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: 12/08/11 at 07:56 PM

Group Number: 1275478

Surrogate Quality Control

MSD 79

Limits: 64-126

Analysis Name: 15a Energetics by 8330A
Batch number: 113190001A
2-Nitro-m-xylene

6463908	100
6463909	91
Blank	105
LCS	104
LCSD	103
MS	86
MSD	86

Limits: 80-146

Analysis Name: 18a Alcohols by 8015B
Batch number: 113130024A
Acetone

6463908	78
6463909	79
Blank	84
LCS	86
MS	4*
MSD	22*

Limits: 42-138

Analysis Name: 22a Terphenyls by 8015B
Batch number: 113180012A
n-Triacontane-d62

6463908	77
6463909	77
Blank	79
LCS	76
MS	78
MSD	78

Limits: 19-152

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 113190011A
Chlorobenzene Orthoterphenyl

6463908	68	83
6463909	71	83
Blank	71	89
LCS	78	94
MS	68	85
MSD	68	87

Limits: 37-125 47-145

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275478

Surrogate Quality Control

Analysis Name: 19a Glycols by 8015B
Batch number: 113200029A
Tetramethylene glycol

6463908	92
6463909	91
Blank	102
LCS	102
MS	91
MSD	92

Limits: 29-137

*- Outside of specification

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- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1275478

Sample# 6463908-13

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING																				Other Instructions and Notes			
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels § Moisture by EPA 800.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 9 (SA9) & Subarea 7 (SA7) also report Tetrafin under EPA Method 8270C.																									
Samplers Signature: <i>Carulla</i>																									
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8209&7471A	*Fluoride EPA 300.0	*VOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Pesticides EPA 314.0	*Hex. Chrome EPA 7199	*PH EPA 8045C/8040B	Perchlorate Confirmation by EPA 8950 (10%)	*TPH-GRO EPA 80155 §	*TPH-EFM EPA 80165 Mod	*Nitrates EPA 300.0	*Formaldehyde EPA 8154A	*% HClMA EPA 1625C	*Emergencia EPA 8300A	*Cyanide EPA 8012B	*Terphenyls EPA 80159	*Glycols EPA 80159	*Alcohols EPA 80159	*Dioxane EPA 8270
SL-010-SASDS-2.5	11.08.11	0920	SOIL	NONE	2-Encores										X										
SL-010-SASDS-2.0-3.0	11.08.11	0915	SOIL	NONE	2-SS Sleeve			X	X																
SL-010-SASDS-2.0-3.0	11.08.11	0915	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X	
SL-010-SASDS-2.5	11.08.11	1445	SOIL	NONE	2-Encores										X										
SL-010-SASDS-2.0-3.0	11.08.11	1445	SOIL	NONE	2-SS Sleeve			X	X																
SL-010-SASDS-2.0-3.0	11.08.11	1445	SOIL	NONE	2-16 oz Jars	X				X	X	X	X					X	X	X	X	X	X	X	
EB-SASDS-SB-110811	11.08.11	1410	WATER	NONE	1-1 L Amber													X							
TB-110811	11.08.11	0900	WATER	NONE	1-1 L Amber													X							
TB-110811	11.08.11	0900	SOIL	NONE	1-1 oz. Amber jar													X							
TB-110811	11.08.11	0900	WATER	NONE	1-10 ml. Vial										X										
Relinquished by: (Signature) <i>[Signature]</i>		Date/Time 11/08/2011 / 1630		Received for Laboratory by: (Signature) <i>[Signature]</i>																	Laboratory: Lancaster Laboratories, Inc.				
Received by: (Signature) <i>Broudy</i>		Date/Time 11-9-11 935		Airbill No.(s) 8767 9857 4905																					

Nicole Maljovec

From: Nicole Maljovec
Sent: Wednesday, November 30, 2011 2:13 PM
To: 'Bloisa, Peggy'
Cc: Hartman, Pamela; Zakowski, Cherie
Subject: RE: COC corrections

Hi Peggy,
We caught these and ran them by Pam. I didn't update the COC for the 11/8 samples though, so it's a good thing you emailed! ☺ I'll upload the updated COC with the original for those.

Thanks!
Nicole

From: Bloisa, Peggy [mailto:BloisaMJ@cdm.com]
Sent: Wednesday, November 30, 2011 1:40 PM
To: Nicole Maljovec
Cc: Hartman, Pamela; Zakowski, Cherie
Subject: COC corrections

Hi Nicole – I found some sample number boo-boos on three COCs – hopefully you caught these! If not please correct on your end (hopefully it's not too late for the 9/30/11 samples).

See attached.

Peggy Bloisa, P.G.
CDM
| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |
| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING																								
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetratin under EPA Method 8270C.																										
Samplers Signatures:																										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 601060208/471A	*Iodide EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBAPCTs EPA 8067	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chloride EPA 199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	**TPH-LEFH EPA 8015B Mod.	**Nitrate EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Engritox EPA 8130A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downfall EPA 8270	Other Instructions and Notes
SL-010-SA5DS-SB-2.5	11.08.11	0920	SOIL	NONE	2-Encores										X											
SL-010-SA5DS-SB-2.0-3.0	11.08.11	0915	SOIL	NONE	2-SS Sleeve			X	X																	
SL-010-SA5DS-SB-2.0-3.0	11.08.11	0915	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X		
SL-019-SA5DS-SB-2.5	11.08.11	1445	SOIL	NONE	2-Encores										X											
SL-019-SA5DS-SB-2.0-3.0	11.08.11	1440	SOIL	NONE	2-SS Sleeve			X	X																	
SL-019-SA5DS-SB-2.0-3.0	11.08.11	1440	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X		
EB-SA5DS-SB-110811	11.08.11	1410	WATER	NONE	1-1 L Amber														X							
TB-110811	11.08.11	0800	WATER	NONE	1-1 L Amber														X							
TB-110811	11.08.11	0800	SOIL	NONE	1-8 oz Jar														X							
TB-110811	11.08.11	0800	WATER	NONE	2-40 mL Vials										X											
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)					Laboratory:																		
	11/08/2011 / 1630							Lancaster Laboratories, Inc.																		
Received by: (Signature)	Date/Time		Airbill No.(s)																							
			8767 9857 4905																							

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 02, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/09/2011
Group Number: 1275479
SDG: DX154
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CAClient Sample DescriptionSL-010-SA5DS-SB-2.0-3.0 Soil
SL-019-SA5DS-SB-2.0-3.0 SoilLancaster Labs (LLI) #6463914
6463915

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

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Page 1 of 4

Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463914
LLI Group # 1275479
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/02/2011 09:06

Suite 210

Chantilly VA 20151

X5414 SDG#: DX154-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463914
LLI Group # 1275479
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

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Reported: 12/02/2011 09:06

Suite 210

Chantilly VA 20151

X5414 SDG#: DX154-14

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	0.0274 JQ	0.0269	1.11	1
11031	12378-PeCDD	40321-76-4	0.0315 U	0.0315	5.54	1
11031	123478-HxCDD	39227-28-6	0.0300 JQ	0.0224	5.54	1
11031	123678-HxCDD	57653-85-7	0.184 JB	0.0227	5.54	1
11031	123789-HxCDD	19408-74-3	0.237 J	0.0241	5.54	1
11031	1234678-HpCDD	35822-46-9	0.414 JB	0.0252	5.54	1
11031	OCDD	3268-87-9	1.92 JB	0.0194	11.1	1
11031	2378-TCDF	51207-31-9	0.0225 U	0.0225	1.11	1
11031	12378-PeCDF	57117-41-6	0.0832 JB	0.0127	5.54	1
11031	23478-PeCDF	57117-31-4	0.0688 JB	0.0130	5.54	1
11031	123478-HxCDF	70648-26-9	0.0677 JB	0.0183	5.54	1
11031	123678-HxCDF	57117-44-9	0.0738 JB	0.0159	5.54	1
11031	123789-HxCDF	72918-21-9	0.222 JB	0.0184	5.54	1
11031	234678-HxCDF	60851-34-5	0.0747 JB	0.0153	5.54	1
11031	1234678-HpCDF	67562-39-4	0.364 JB	0.0129	5.54	1
11031	1234789-HpCDF	55673-89-7	0.0431 JB	0.0214	5.54	1
11031	OCDF	39001-02-0	0.371 JBQ	0.0347	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463914
LLI Group # 1275479
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/02/2011 09:06

Suite 210

Chantilly VA 20151

X5414 SDG#: DX154-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-010-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA5DS-SB

LLI Sample # SW 6463914
LLI Group # 1275479
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/02/2011 09:06

Suite 210

Chantilly VA 20151

X5414 SDG#: DX154-14

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11314001	11/12/2011 11:22	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11314001	11/10/2011 10:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463915
LLI Group # 1275479
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/02/2011 09:06

Suite 210

Chantilly VA 20151

X5415 SDG#: DX154-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	7.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463915
LLI Group # 1275479
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/02/2011 09:06

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Chantilly VA 20151

X5415 SDG#: DX154-15

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	0.0249 U	0.0249	1.08	1
11031	12378-PeCDD	40321-76-4	0.0273 JQ	0.0228	5.38	1
11031	123478-HxCDD	39227-28-6	0.0219 J	0.0198	5.38	1
11031	123678-HxCDD	57653-85-7	0.0582 JBQ	0.0207	5.38	1
11031	123789-HxCDD	19408-74-3	0.0841 J	0.0197	5.38	1
11031	1234678-HpCDD	35822-46-9	0.388 JB	0.0192	5.38	1
11031	OCDD	3268-87-9	1.25 JB	0.0210	10.8	1
11031	2378-TCDF	51207-31-9	0.0281 JQ	0.0190	1.08	1
11031	12378-PeCDF	57117-41-6	0.0240 JBQ	0.0111	5.38	1
11031	23478-PeCDF	57117-31-4	0.0868 JBQ	0.0110	5.38	1
11031	123478-HxCDF	70648-26-9	0.0668 JB	0.0149	5.38	1
11031	123678-HxCDF	57117-44-9	0.0492 JB	0.0137	5.38	1
11031	123789-HxCDF	72918-21-9	0.0825 JB	0.0159	5.38	1
11031	234678-HxCDF	60851-34-5	0.0786 JB	0.0131	5.38	1
11031	1234678-HpCDF	67562-39-4	0.273 JB	0.0114	5.38	1
11031	1234789-HpCDF	55673-89-7	0.0392 JBQ	0.0181	5.38	1
11031	OCDF	39001-02-0	0.236 JB	0.0306	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463915
LLI Group # 1275479
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/02/2011 09:06

Suite 210

Chantilly VA 20151

X5415 SDG#: DX154-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-019-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA5DS-SB

LLI Sample # SW 6463915
LLI Group # 1275479
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2011 14:40

CDM Federal Programs Corp.

Submitted: 11/09/2011 09:35

14420 Albemarle Point Place

Reported: 12/02/2011 09:06

Suite 210

Chantilly VA 20151

X5415 SDG#: DX154-15

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11314001	11/12/2011 12:19	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11314001	11/10/2011 10:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:06 AM

Group Number: 1275479

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6463914-6463915				99		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11314001	Sample number(s): 6463914-6463915								
2378-TCDD	0.0297 U	0.0297	1.00	ng/kg	103		67-158		
123478-PeCDD	0.0234 U	0.0234	5.00	ng/kg	104		70-142		
123478-HxCDD	0.0192 U	0.0192	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0211 J	0.0199	5.00	ng/kg	92		76-134		
123789-HxCDD	0.0192 U	0.0192	5.00	ng/kg	101		64-162		
1234678-HpCDD	0.227 J	0.0206	5.00	ng/kg	100		70-140		
OCDD	0.373 J	0.0147	10.0	ng/kg	95		78-144		
2378-TCDF	0.0224 U	0.0224	1.00	ng/kg	99		75-158		
12378-PeCDF	0.0144 J	0.0118	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0487 J	0.0117	5.00	ng/kg	95		68-160		
123478-HxCDF	0.0342 J	0.0138	5.00	ng/kg	84		72-134		
123678-HxCDF	0.0199 J	0.0122	5.00	ng/kg	98		84-130		
123789-HxCDF	0.0237 J	0.0142	5.00	ng/kg	97		78-130		
234678-HxCDF	0.0328 J	0.0126	5.00	ng/kg	93		70-156		
1234678-HpCDF	0.0927 J	0.00670	5.00	ng/kg	90		82-122		
1234789-HpCDF	0.0322 J	0.0102	5.00	ng/kg	96		78-138		
OCDF	0.140 J	0.0258	10.0	ng/kg	96		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6463914-6463915					BKG: P463909 7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:06 AM

Group Number: 1275479

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11314001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6463914	70	69	67	74	74	71
6463915	70	67	66	74	76	70
Blank	77	78	74	86	79	83
OPR	70	71	67	70	73	74
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6463914	90	67	71	72	83	85
6463915	92	67	71	70	86	85
Blank	109	81	88	85	91	92
OPR	95	75	81	75	79	84
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6463914	81	84	93	70	76	
6463915	82	85	93	68	75	
Blank	91	101	112	72	86	
OPR	82	90	100	67	76	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1275479

Sample # 6463914-15

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING																									
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels † Moisture by EPA 160.3 will be performed on soil in 18 oz. Jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SAB) & Subarea 7 (SAT) also report Tetralls under EPA Method 8270C.																											
Samplers Signature: <i>C. Wells</i>																											
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Merck EPA 8010C/8270A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chlorine EPA 7189	*PH EPA 8045C/8040B	Perchlorate Confirmation by EPA 8060 (17%)	TPH-GRO EPA 8015B &	TPH-LEPH EPA 8015B Med.	*Nitrates EPA 300.0	*Formaldehyde EPA 8313A	*pH-NDMA EPA 825C	*Enthalpies EPA 8330A	*Cyanide EPA 8012B	*Terphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B	*Dowson EPA 8270	Other Instructions and Notes	
SL-010-SA5DS-2.5	11.08.11	0920	SOIL	NONE	2-Encores										X												
SL-010-SA5DS-2.0-3.0	11.08.11	0915	SOIL	NONE	2-SS Sieve			X	X																		
SL-010-SA5DS-2.0-3.0	11.08.11	0915	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X	X		
SL-010-SA5DS-SB-2.5	11.08.11	1445	SOIL	NONE	2-Encores										X												
SL-010-SA5DS-SB-2.0-3.0	11.08.11	1440	SOIL	NONE	2-SS Sieve			X	X																		
SL-010-SA5DS-SB-2.0-3.0	11.08.11	1440	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X			
EB-SA5DS-SB-110811	11.08.11	1410	WATER	NONE	1-1 L Amber													X									
TB-110811	11.08.11	0800	WATER	NONE	1-1 L Amber													X									
TB-110811	11.08.11	0800	SOIL	NONE	1-8 oz Jar													X									
TB-110811	11.08.11	0800	WATER	NONE	2-40 mL Vials										X												
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)					Laboratory:																				
<i>Michael H. Burch</i>	11/08/2011 / 1630						Lancaster Laboratories, Inc.																				
Received by: (Signature)	Date/Time	Airbill No.(s)																									
<i>Burch</i>	11-9-11 435	8767 9857 4905																									

Nicole Maljovec

From: Nicole Maljovec
Sent: Wednesday, November 30, 2011 2:13 PM
To: 'Bloisa, Peggy'
Cc: Hartman, Pamela; Zakowski, Cherie
Subject: RE: COC corrections

Hi Peggy,
We caught these and ran them by Pam. I didn't update the COC for the 11/8 samples though, so it's a good thing you emailed! ☺ I'll upload the updated COC with the original for those.

Thanks!
Nicole

From: Bloisa, Peggy [mailto:BloisaMJ@cdm.com]
Sent: Wednesday, November 30, 2011 1:40 PM
To: Nicole Maljovec
Cc: Hartman, Pamela; Zakowski, Cherie
Subject: COC corrections

Hi Nicole – I found some sample number boo-boos on three COCs – hopefully you caught these! If not please correct on your end (hopefully it's not too late for the 9/30/11 samples).

See attached.

Peggy Bloisa, P.G.
CDM
| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |
| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING																								
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels ‡ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																										
Samplers Signatures:																										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 60106/60208&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCBs EPA 8067	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9045C/9040H	Perchlorate Confirmation by EPA 6850 (10%)	*TPH/GRO EPA 8015B ‡	**TPH/LEH EPA 8015B Mod	***Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Enthalpies EPA 8330A	*Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downal EPA 8270	Other Instructions and Notes
SL-010-SA5DS-SB-2.5	11.08.11	0920	SOIL	NONE	2-Encores										X											
SL-010-SA5DS-SB-2.0-3.0	11.08.11	0915	SOIL	NONE	2-SS Sleeve			X	X																	
SL-010-SA5DS-SB-2.0-3.0	11.08.11	0915	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X		
SL-019-SA5DS-SB-2.5	11.08.11	1445	SOIL	NONE	2-Encores									X												
SL-019-SA5DS-SB-2.0-3.0	11.08.11	1440	SOIL	NONE	2-SS Sleeve			X	X																	
SL-019-SA5DS-SB-2.0-3.0	11.08.11	1440	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X		
EB-SA5DS-SB-110811	11.08.11	1410	WATER	NONE	1-1 L Amber													X								
TB-110811	11.08.11	0800	WATER	NONE	1-1 L Amber													X								
TB-110811	11.08.11	0800	SOIL	NONE	1-8 oz Jar													X								
TB-110811	11.08.11	0800	WATER	NONE	2-40 mL Vials									X												
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)																			Laboratory:				
	11/08/2011 / 1630																					Lancaster Laboratories, Inc.				
Received by: (Signature)	Date/Time		Airbill No.(s)																							
			8767 9857 4905																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 08, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/10/2011

Group Number: 1275704

SDG: DE283

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-005-SA5DS-SB-1.0-2.0 Soil	6465417
SL-006-SA5DS-SS-0.0-0.5 Soil	6465418
SL-006-SA5DS-SS-0.0-0.5MS Soil	6465419
SL-006-SA5DS-SS-0.0-0.5MSD Soil	6465420
SL-006-SA5DS-SS-0.0-0.5DUP Soil	6465421
SL-006-SA5DS-SS-0.0-0.5RL MS Soil	6465422
SL-006-SA5DS-SS-0.0-0.5RL LCS Soil	6465423
SL-021-SA5DS-SB-2.0-3.0 Soil	6465424
SL-022-SA5DS-SB-4.0-5.0 Soil	6465425
DUP04-SA5DS-QC-110911 Soil	6465426
EB-SA5DS-SB-110911 Water	6465427
TB-110911 Sand	6465428
TB-110911 Water	6465429
TB-110911 Water	6465430

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Matthew E. Barton
Senior Specialist

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465417
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8301 SDG#: DE283-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	17.6 U	17.6	35.2		1
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	170	U 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	2-butoxy-Ethanol	111-76-2	1,700	U 1,700	1,700		1
	2-butoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170		1
04688	4-Chloroaniline	106-47-8	69	U 69	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	35	U 35	170		1
04688	4-Methylphenol	106-44-5	35	U 35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	35	U 35	170		1
04688	4-Nitroaniline	100-01-6	69	U 69	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465417
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

ED301 SDG#: DE283-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520		1
04688	Phenol	108-95-2	17	U 17	170		1
04688	2-phenoxy-Ethanol	122-99-6	1,700	U 1,700	1,700		1
	2-phenoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7		1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.7		1
10138	Anthracene	120-12-7	0.35	U 0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	0.69	U 0.69	1.7		1
10138	Benzo(a)pyrene	50-32-8	0.69	U 0.69	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	0.86	J 0.69	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	0.69	U 0.69	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7		1
10138	Butylbenzylphthalate	85-68-7	11	J 6.2	19		1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19		1
10138	Chrysene	218-01-9	0.67	J 0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7		1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19		1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	19	J 6.2	19		1
10138	Fluoranthene	206-44-0	0.89	J 0.69	1.7		1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7		1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7		1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19		1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7		1
10138	Pyrene	129-00-0	0.73	J 0.69	1.7		1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2	U 0.2	1.2		28.67
Explosives	SW-846 8330A		ug/kg	ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	63	U 63	130	1000000 0	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 7

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465417
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8301 SDG#: DE283-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/kg	ug/kg	ug/kg	ug/kg	
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	42 U	42	130	1000000 0	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	84 U	84	250	1000000 0	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	84 U	84	250	1000000 0	1
10132	1,3-Dinitrobenzene	99-65-0	42 U	42	130	1000000 0	1
10132	2,4-Dinitrotoluene	121-14-2	42 U	42	130	1000000 0	1
10132	2,6-Dinitrotoluene	606-20-2	42 U	42	130	1000000 0	1
10132	HMX	2691-41-0	110 U	110	320	1000000 0	1
10132	Nitrobenzene	98-95-3	42 U	42	130	1000000 0	1
10132	Nitroglycerin	55-63-0	840 U	840	2,500	1000000 0	1
10132	2-Nitrotoluene	88-72-2	84 U	84	130	1000000 0	1
10132	3-Nitrotoluene	99-08-1	110 U	110	130	1000000 0	1
10132	4-Nitrotoluene	99-99-0	84 U	84	130	1000000 0	1
10132	PETN	78-11-5	840 U	840	2,500	1000000 0	1
10132	RDX	121-82-4	53 U	53	130	1000000 0	1
10132	Tetryl	479-45-8	65 U	65	130	1000000 0	1
10132	1,3,5-Trinitrobenzene	99-35-4	42 U	42	130	1000000 0	1
10132	2,4,6-Trinitrotoluene	118-96-7	42 U	42	130	1000000 0	1
HPLC Organics		SW-846 8315A	ug/kg	ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	630 U	630	1,600		1
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5		1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8		1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8		1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8		1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8		1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8		1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8		1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465417
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8301 SDG#: DE283-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8		1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	530		1
10501	Isopropanol	67-63-0	110 U	110	530		1
10501	Methanol	67-56-1	110 U	110	530		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11		1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11		1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg	mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7		1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7		1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3		1
10199	EFH (C15-C20)	n.a.	0.42 U	0.42	1.3		1
10199	EFH (C21-C30)	n.a.	3.3	0.42	1.3		1
10199	EFH (C30 - C40)	n.a.	8.5	0.42	1.3		1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3		1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,800	6.20	20.5		1
07914	Boron	7440-42-8	6.19	0.369	5.13		1
01650	Calcium	7440-70-2	3,960	2.56	20.5		1
01654	Iron	7439-89-6	26,600	2.68	20.5		1
01656	Lithium	7439-93-2	18.8	0.64	2.1		1
01657	Magnesium	7439-95-4	6,400	0.451	10.3		1
06958	Manganese	7439-96-5	191	0.0369	0.513		1
10145	Phosphorus	7723-14-0	868	0.359	10.3		1
01662	Potassium	7440-09-7	1,300	11.6	51.3		1
01667	Sodium	7440-23-5	113	6.10	103		1
07968	Strontium	7440-24-6	19.6	0.0256	0.513		1
06969	Tin	7440-31-5	2.83 J	0.328	10.3		1
06970	Titanium	7440-32-6	827	0.0728	1.03		1
10146	Zirconium	7440-67-7	9.61	0.472	5.13		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.114 J	0.0759	0.205		2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465417
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8301 SDG#: DE283-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	6.45	0.0820	0.410		2
06126	Barium	7440-39-3	49.8	0.109	0.410		2
06127	Beryllium	7440-41-7	0.596	0.0164	0.103		2
06128	Cadmium	7440-43-9	0.128	0.0451	0.103		2
06131	Chromium	7440-47-3	51.3	0.123	0.410		2
06132	Cobalt	7440-48-4	5.13	0.0205	0.103		2
06133	Copper	7440-50-8	5.67	0.0820	0.410		2
06135	Lead	7439-92-1	7.68	0.0105	0.205		2
06138	Molybdenum	7439-98-7	0.333	0.0513	0.103		2
06139	Nickel	7440-02-0	12.9	0.103	0.410		2
06141	Selenium	7782-49-2	0.299 J	0.0595	0.410		2
06142	Silver	7440-22-4	0.0159 J	0.0146	0.103		2
06145	Thallium	7440-28-0	0.134	0.0308	0.103		2
06148	Vanadium	7440-62-2	84.3	0.0226	0.103		2
06149	Zinc	7440-66-6	61.9	0.574	3.08		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0070 U	0.0070	0.0994		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.85	1.1		1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	3.0	0.85	1.6		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.7		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.60 J	0.21	1.1		1
		SW-846 9012B	mg/kg	mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.09	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	5.3	0.50	0.50		1
"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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465417
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/10/2011 09:00

Suite 210

Reported: 12/08/2011 19:56

Chantilly VA 20151

E8301 SDG#: DE283-01

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-005-SA5DS-SB-1.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11320SLG026	12/03/2011 06:21	Matthew S Woods	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 00:09	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/01/2011 22:20	Gregory J Drahovsky	1
11630	NDMA Soil Microwave	SW-846 3546	1	11320SLG026	11/17/2011 07:00	Joseph S Feister	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11313A16B	11/16/2011 17:06	Laura M Krieger	28.67
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201131426165	11/10/2011 15:06	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201131426165	11/10/2011 15:06	Christopher D Meeks	n.a.
10132	15a Energetics by 8330A	SW-846 8330A	1	113190001A	11/19/2011 07:47	James H Place	1
04173	20a Formaldehyde 8315A	SW-846 8315A	1	113180003A	11/16/2011 16:03	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/16/2011 09:36	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011 16:00	JoElla L Rice	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	113180003A	11/14/2011 14:00	Wanda F Oswald	1
11137	Energetics Extraction	SW-846 8330	1	113190001A	11/15/2011 14:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	113180029A	11/15/2011 01:10	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	113200029A	11/16/2011 23:18	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	113180012A	11/15/2011 17:04	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113190011A	11/17/2011 21:10	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113190011A	11/15/2011 16:15	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	113180012A	11/14/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	113180029A	11/14/2011 20:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	113200029A	11/16/2011 16:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465417
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8301 SDG#: DE283-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011 06:14	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011 22:57	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 22:57	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 22:57	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 22:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:11	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 17:54	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11318621202A	11/14/2011 17:54	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/18/2011 00:00	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11322243201A	11/19/2011 11:09	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11320102202A	11/17/2011 08:51	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11320102202A	11/16/2011 15:00	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465418
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465418
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	0.41	J 0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.7	J 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	1.8	J 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,000	6.42	21.2		1
07914	Boron	7440-42-8	7.62	0.382	5.31		1
01650	Calcium	7440-70-2	3,670	2.65	21.2		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465418
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,300	2.77	21.2		1
01656	Lithium	7439-93-2	19.5	0.66	2.1		1
01657	Magnesium	7439-95-4	5,010	0.467	10.6		1
06958	Manganese	7439-96-5	278	0.0382	0.531		1
10145	Phosphorus	7723-14-0	731	0.372	10.6		1
01662	Potassium	7440-09-7	3,110	12.0	53.1		1
01667	Sodium	7440-23-5	98.3 J	6.32	106		1
07968	Strontium	7440-24-6	26.5	0.0265	0.531		1
06969	Tin	7440-31-5	2.71 J	0.340	10.6		1
06970	Titanium	7440-32-6	924	0.0754	1.06		1
10146	Zirconium	7440-67-7	8.03	0.488	5.31		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.203 J	0.0817	0.221		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.80	0.0883	0.442		2
06126	Barium	7440-39-3	81.2	0.117	0.442		2
06127	Beryllium	7440-41-7	0.698	0.0177	0.110		2
06128	Cadmium	7440-43-9	0.233	0.0486	0.110		2
06131	Chromium	7440-47-3	42.0	0.132	0.442		2
06132	Cobalt	7440-48-4	6.69	0.0221	0.110		2
06133	Copper	7440-50-8	7.68	0.0883	0.442		2
06135	Lead	7439-92-1	14.8	0.0113	0.221		2
06138	Molybdenum	7439-98-7	0.484	0.0552	0.110		2
06139	Nickel	7440-02-0	12.5	0.110	0.442		2
06141	Selenium	7782-49-2	0.290 J	0.0640	0.442		2
06142	Silver	7440-22-4	0.0259 J	0.0157	0.110		2
06145	Thallium	7440-28-0	0.238	0.0331	0.110		2
06148	Vanadium	7440-62-2	69.8	0.0243	0.110		2
06149	Zinc	7440-66-6	60.5	0.618	3.31		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0144 J	0.0078	0.111		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.90 U	0.90	1.1		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465418
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.27	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.3	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/01/2011	22:57	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/01/2011	20:35	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011	11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011	11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/18/2011	17:40	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011	16:00	JoElla L Rice	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011	05:35	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011	22:23	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011	22:23	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011	22:23	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011	22:23	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465418
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 22:23	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 22:23	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 22:23	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:13	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 17:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/17/2011 22:48	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11322243201A	11/19/2011 11:16	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465419
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,900	18	180		1
04688	Acenaphthylene	208-96-8	2,000	18	180		1
04688	Aniline	62-53-3	1,400	180	550		1
04688	Anthracene	120-12-7	1,900	18	180		1
04688	Benizidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzo(a)anthracene	56-55-3	1,600	18	180		1
04688	Benzo(a)pyrene	50-32-8	2,000	18	180		1
04688	Benzo(b)fluoranthene	205-99-2	2,000	18	180		1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	18	180		1
04688	Benzo(k)fluoranthene	207-08-9	1,800	18	180		1
04688	Benzoic acid	65-85-0	1,900	180	550		1
04688	Benzyl alcohol	100-51-6	1,800	180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	2,000	18	180		1
04688	Butylbenzylphthalate	85-68-7	1,900	18	180		1
04688	Di-n-butylphthalate	84-74-2	1,900	18	180		1
04688	Carbazole	86-74-8	1,800	18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	1,900	37	180		1
04688	4-Chloroaniline	106-47-8	1,000	73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,800	18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,700	18	180		1
04688	2-Chloronaphthalene	91-58-7	1,400	18	180		1
04688	2-Chlorophenol	95-57-8	1,800	18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	37	180		1
04688	Chrysene	218-01-9	1,700	18	180		1
04688	Dibenz(a,h)anthracene	53-70-3	1,900	18	180		1
04688	Dibenzofuran	132-64-9	1,800	18	180		1
04688	1,2-Dichlorobenzene	95-50-1	1,700	18	180		1
04688	1,3-Dichlorobenzene	541-73-1	1,700	18	180		1
04688	1,4-Dichlorobenzene	106-46-7	1,600	18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	1,100	110	370		1
04688	2,4-Dichlorophenol	120-83-2	1,900	18	180		1
04688	Diethylphthalate	84-66-2	1,800	18	180		1
04688	2,4-Dimethylphenol	105-67-9	1,900	37	180		1
04688	3,5-Dimethylphenol	108-68-9	1,900	37	180		1
04688	Dimethylphthalate	131-11-3	1,800	18	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,800	180	550		1
04688	2,4-Dinitrophenol	51-28-5	2,900	370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	1,800	37	180		1
04688	2,6-Dinitrotoluene	606-20-2	1,900	18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	2,100	18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,800	18	370		1
04688	Fluoranthene	206-44-0	1,800	18	180		1
04688	Fluorene	86-73-7	1,900	18	180		1
04688	Hexachlorobenzene	118-74-1	1,900	18	180		1
04688	Hexachlorobutadiene	87-68-3	1,800	73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	4,800	E 180	550		1
04688	Hexachloroethane	67-72-1	1,700	18	180		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	18	180		1
04688	Isophorone	78-59-1	1,800	18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465419
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,700	18	180		1
04688	2-Methylnaphthalene	91-57-6	1,800	18	180		1
04688	2-Methylphenol	95-48-7	1,900	37	180		1
04688	4-Methylphenol	106-44-5	1,700	37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	1,800	18	180		1
04688	2-Nitroaniline	88-74-4	1,800	18	180		1
04688	3-Nitroaniline	99-09-2	1,600	37	180		1
04688	4-Nitroaniline	100-01-6	1,400	73	180		1
04688	Nitrobenzene	98-95-3	1,700	18	180		1
04688	2-Nitrophenol	88-75-5	1,800	18	180		1
04688	4-Nitrophenol	100-02-7	1,600	180	550		1
04688	N-Nitrosodimethylamine	62-75-9	1,700	37	180		1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	2,000	18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	2,200	18	180		1
04688	Pentachlorophenol	87-86-5	1,300	180	550		1
04688	Phenanthrene	85-01-8	1,900	18	180		1
04688	Phenol	108-95-2	1,700	18	180		1
04688	Pyrene	129-00-0	1,900	18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	32	0.73	1.8		1
10138	Acenaphthylene	208-96-8	33	0.37	1.8		1
10138	Anthracene	120-12-7	34	0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	36	0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	28	0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	28	0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	22	0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	30	0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	47	6.6	20		1
10138	Di-n-butylphthalate	84-74-2	53	6.6	20		1
10138	Chrysene	218-01-9	35	0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	27	0.73	1.8		1
10138	Diethylphthalate	84-66-2	47	6.6	20		1
10138	Dimethylphthalate	131-11-3	39	6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	55	6.6	20		1
10138	Fluoranthene	206-44-0	41	0.73	1.8		1
10138	Fluorene	86-73-7	35	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	25	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	32	0.73	1.8		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465419
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM							
10138	2-Methylnaphthalene	91-57-6	31	0.73	1.8		1
10138	Naphthalene	91-20-3	33	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	37	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	35	6.6	20		1
10138	Phenanthrene	85-01-8	35	0.73	1.8		1
10138	Pyrene	129-00-0	32	0.73	1.8		1
Pesticides/PCBs SW-846 8082							
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.4 J	1.1	3.7		1
10225	PCB-1016	12674-11-2	14	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	5.2	0.37	1.9		1
10225	PCB-1260	11096-82-5	16	0.43	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Metals SW-846 6010B							
01643	Aluminum	7429-90-5	19,600	6.61	21.9		1
07914	Boron	7440-42-8	221	0.393	5.46		1
01650	Calcium	7440-70-2	4,610	2.73	21.9		1
01654	Iron	7439-89-6	23,700	2.85	21.9		1
01656	Lithium	7439-93-2	129	0.68	2.2		1
01657	Magnesium	7439-95-4	5,390	0.481	10.9		1
06958	Manganese	7439-96-5	321	0.0393	0.546		1
10145	Phosphorus	7723-14-0	800	0.383	10.9		1
01662	Potassium	7440-09-7	4,380	12.4	54.6		1
01667	Sodium	7440-23-5	1,180	6.50	109		1
07968	Strontium	7440-24-6	136	0.0273	0.546		1
06969	Tin	7440-31-5	367	0.350	10.9		1
06970	Titanium	7440-32-6	1,260	0.0776	1.09		1
10146	Zirconium	7440-67-7	107	0.503	5.46		1
SW-846 6020							
06124	Antimony	7440-36-0	0.470	0.0801	0.216		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	7.14	0.0866	0.433		2
06126	Barium	7440-39-3	77.3	0.115	0.433		2
06127	Beryllium	7440-41-7	1.28	0.0173	0.108		2
06128	Cadmium	7440-43-9	1.34	0.0476	0.108		2
06131	Chromium	7440-47-3	43.5	0.130	0.433		2
06132	Cobalt	7440-48-4	49.4	0.0216	0.108		2
06133	Copper	7440-50-8	17.2	0.0866	0.433		2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465419
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06135	Lead	7439-92-1	14.8	0.0110	0.216		2
06138	Molybdenum	7439-98-7	10.1	0.0541	0.108		2
06139	Nickel	7440-02-0	21.1	0.108	0.433		2
06141	Selenium	7782-49-2	2.15	0.0628	0.433		2
06142	Silver	7440-22-4	11.1	0.0154	0.108		2
06145	Thallium	7440-28-0	0.599	0.0325	0.108		2
06148	Vanadium	7440-62-2	67.0	0.0238	0.108		2
06149	Zinc	7440-66-6	58.8	0.606	3.25		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.174	0.0077	0.110		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	8.1	0.90	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	637	10.0	33.4		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	42.1	1.1	5.6		5
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/01/2011 23:21	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/01/2011 21:10	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/18/2011 17:59	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011 16:00	JoElla L Rice	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465419
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011 05:47	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011 22:39	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 22:39	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 22:39	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 22:39	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:17	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 17:40	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/17/2011 23:36	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11322243201A	11/19/2011 11:36	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465420
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

ED302 SDG#: DE283-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,600	18	180		1
04688	Acenaphthylene	208-96-8	1,700	18	180		1
04688	Aniline	62-53-3	1,100	180	550		1
04688	Anthracene	120-12-7	1,600	18	180		1
04688	Benzydine	92-87-5	1,600	J 1,300	3,700		1
04688	Benzo(a)anthracene	56-55-3	1,400	18	180		1
04688	Benzo(a)pyrene	50-32-8	1,700	18	180		1
04688	Benzo(b)fluoranthene	205-99-2	1,700	18	180		1
04688	Benzo(g,h,i)perylene	191-24-2	1,500	18	180		1
04688	Benzo(k)fluoranthene	207-08-9	1,500	18	180		1
04688	Benzoic acid	65-85-0	1,500	180	550		1
04688	Benzyl alcohol	100-51-6	1,500	180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	1,600	18	180		1
04688	Butylbenzylphthalate	85-68-7	1,600	18	180		1
04688	Di-n-butylphthalate	84-74-2	1,600	18	180		1
04688	Carbazole	86-74-8	1,500	18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	37	180		1
04688	4-Chloroaniline	106-47-8	880	73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,500	18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	1,500	18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,400	18	180		1
04688	2-Chloronaphthalene	91-58-7	1,200	18	180		1
04688	2-Chlorophenol	95-57-8	1,600	18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,600	37	180		1
04688	Chrysene	218-01-9	1,500	18	180		1
04688	Dibenz(a,h)anthracene	53-70-3	1,600	18	180		1
04688	Dibenzofuran	132-64-9	1,500	18	180		1
04688	1,2-Dichlorobenzene	95-50-1	1,500	18	180		1
04688	1,3-Dichlorobenzene	541-73-1	1,400	18	180		1
04688	1,4-Dichlorobenzene	106-46-7	1,400	18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	890	110	370		1
04688	2,4-Dichlorophenol	120-83-2	1,600	18	180		1
04688	Diethylphthalate	84-66-2	1,600	18	180		1
04688	2,4-Dimethylphenol	105-67-9	1,600	37	180		1
04688	3,5-Dimethylphenol	108-68-9	1,600	37	180		1
04688	Dimethylphthalate	131-11-3	1,600	18	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,500	180	550		1
04688	2,4-Dinitrophenol	51-28-5	2,700	370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	1,600	37	180		1
04688	2,6-Dinitrotoluene	606-20-2	1,600	18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,500	18	370		1
04688	Fluoranthene	206-44-0	1,600	18	180		1
04688	Fluorene	86-73-7	1,600	18	180		1
04688	Hexachlorobenzene	118-74-1	1,600	18	180		1
04688	Hexachlorobutadiene	87-68-3	1,500	73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	3,400	180	550		1
04688	Hexachloroethane	67-72-1	1,400	18	180		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,500	18	180		1
04688	Isophorone	78-59-1	1,500	18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465420
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,500	18	180		1
04688	2-Methylnaphthalene	91-57-6	1,500	18	180		1
04688	2-Methylphenol	95-48-7	1,600	37	180		1
04688	4-Methylphenol	106-44-5	1,400	37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	1,500	18	180		1
04688	2-Nitroaniline	88-74-4	1,600	18	180		1
04688	3-Nitroaniline	99-09-2	1,500	37	180		1
04688	4-Nitroaniline	100-01-6	1,100	73	180		1
04688	Nitrobenzene	98-95-3	1,500	18	180		1
04688	2-Nitrophenol	88-75-5	1,500	18	180		1
04688	4-Nitrophenol	100-02-7	1,400	180	550		1
04688	N-Nitrosodimethylamine	62-75-9	1,400	37	180		1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	1,600	18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	1,900	18	180		1
04688	Pentachlorophenol	87-86-5	1,400	180	550		1
04688	Phenanthrene	85-01-8	1,600	18	180		1
04688	Phenol	108-95-2	1,500	18	180		1
04688	Pyrene	129-00-0	1,600	18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	1,500	18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	1,600	37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	1,600	37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	34	0.73	1.8		1
10138	Acenaphthylene	208-96-8	34	0.37	1.8		1
10138	Anthracene	120-12-7	34	0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	35	0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	35	0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	38	0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	32	0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	33	0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	41	6.6	20		1
10138	Di-n-butylphthalate	84-74-2	44	6.6	20		1
10138	Chrysene	218-01-9	34	0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	35	0.73	1.8		1
10138	Diethylphthalate	84-66-2	44	6.6	20		1
10138	Dimethylphthalate	131-11-3	40	6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	50	6.6	20		1
10138	Fluoranthene	206-44-0	37	0.73	1.8		1
10138	Fluorene	86-73-7	36	0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	34	0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	31	0.73	1.8		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465420
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM							
10138	2-Methylnaphthalene	91-57-6	31	0.73	1.8		1
10138	Naphthalene	91-20-3	32	0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	31	0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	50	6.6	20		1
10138	Phenanthrene	85-01-8	33	0.73	1.8		1
10138	Pyrene	129-00-0	31	0.73	1.8		1
Pesticides/PCBs SW-846 8082							
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	3.2 J	1.1	3.7		1
10225	PCB-1016	12674-11-2	15	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	7.3	0.37	1.9		1
10225	PCB-1260	11096-82-5	17	0.43	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Metals SW-846 6010B							
01643	Aluminum	7429-90-5	19,500	6.55	21.6		1
07914	Boron	7440-42-8	220	0.390	5.41		1
01650	Calcium	7440-70-2	4,560	2.71	21.6		1
01654	Iron	7439-89-6	23,700	2.82	21.6		1
01656	Lithium	7439-93-2	127	0.67	2.2		1
01657	Magnesium	7439-95-4	5,340	0.476	10.8		1
06958	Manganese	7439-96-5	319	0.0390	0.541		1
10145	Phosphorus	7723-14-0	810	0.379	10.8		1
01662	Potassium	7440-09-7	4,420	12.2	54.1		1
01667	Sodium	7440-23-5	1,170	6.44	108		1
07968	Strontium	7440-24-6	136	0.0271	0.541		1
06969	Tin	7440-31-5	363	0.346	10.8		1
06970	Titanium	7440-32-6	1,310	0.0768	1.08		1
10146	Zirconium	7440-67-7	105	0.498	5.41		1
SW-846 6020							
06124	Antimony	7440-36-0	0.658	0.0786	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	9.31	0.0849	0.425		2
06126	Barium	7440-39-3	111	0.113	0.425		2
06127	Beryllium	7440-41-7	1.78	0.0170	0.106		2
06128	Cadmium	7440-43-9	1.77	0.0467	0.106		2
06131	Chromium	7440-47-3	58.9	0.127	0.425		2
06132	Cobalt	7440-48-4	65.8	0.0212	0.106		2
06133	Copper	7440-50-8	24.2	0.0849	0.425		2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465420
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/10/2011 09:00

Reported: 12/08/2011 19:56

E8302 SDG#: DE283-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06135	Lead	7439-92-1	21.7	0.0108	0.212		2
06138	Molybdenum	7439-98-7	14.5	0.0531	0.106		2
06139	Nickel	7440-02-0	30.1	0.106	0.425		2
06141	Selenium	7782-49-2	2.85	0.0616	0.425		2
06142	Silver	7440-22-4	15.0	0.0151	0.106		2
06145	Thallium	7440-28-0	0.853	0.0319	0.106		2
06148	Vanadium	7440-62-2	89.3	0.0234	0.106		2
06149	Zinc	7440-66-6	84.3	0.595	3.19		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.165	0.0076	0.108		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/01/2011 23:45	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/01/2011 21:45	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/18/2011 18:18	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011 16:00	JoElla L Rice	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 5 of 5

Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465420
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011 05:51	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011 22:35	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 22:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 22:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 22:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:18	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 3

Sample Description: SL-006-SA5DS-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465421
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,800	6.74	22.3		1
07914	Boron	7440-42-8	7.23	0.401	5.57		1
01650	Calcium	7440-70-2	3,500	2.79	22.3		1
01654	Iron	7439-89-6	25,700	2.91	22.3		1
01656	Lithium	7439-93-2	19.2	0.69	2.2		1
01657	Magnesium	7439-95-4	5,350	0.491	11.1		1
06958	Manganese	7439-96-5	265	0.0401	0.557		1
10145	Phosphorus	7723-14-0	713	0.390	11.1		1
01662	Potassium	7440-09-7	3,380	12.6	55.7		1
01667	Sodium	7440-23-5	95.6 J	6.63	111		1
07968	Strontium	7440-24-6	25.2	0.0279	0.557		1
06969	Tin	7440-31-5	2.69 J	0.357	11.1		1
06970	Titanium	7440-32-6	916	0.0792	1.11		1
10146	Zirconium	7440-67-7	8.70	0.513	5.57		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.116 J	0.0817	0.221		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	4.76	0.0883	0.442		2
06126	Barium	7440-39-3	69.3	0.117	0.442		2
06127	Beryllium	7440-41-7	0.566	0.0177	0.110		2
06128	Cadmium	7440-43-9	0.171	0.0486	0.110		2
06131	Chromium	7440-47-3	35.7	0.132	0.442		2
06132	Cobalt	7440-48-4	5.35	0.0221	0.110		2
06133	Copper	7440-50-8	6.83	0.0883	0.442		2
06135	Lead	7439-92-1	12.7	0.0113	0.221		2
06138	Molybdenum	7439-98-7	0.448	0.0552	0.110		2
06139	Nickel	7440-02-0	11.1	0.110	0.442		2
06141	Selenium	7782-49-2	0.215 J	0.0640	0.442		2
06142	Silver	7440-22-4	0.0279 J	0.0157	0.110		2
06145	Thallium	7440-28-0	0.186	0.0331	0.110		2
06148	Vanadium	7440-62-2	60.1	0.0243	0.110		2
06149	Zinc	7440-66-6	53.5	0.618	3.31		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0124 J	0.0075	0.106		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.0 J	0.90	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4		1
		SW-846 7199	mg/kg	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

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465421
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/10/2011 09:00

Reported: 12/08/2011 19:56

E8302 SDG#: DE283-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.21	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	10.3	0.50	0.50		1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.							
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011 05:43	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011 22:29	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 22:29	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 22:29	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-006-SA5DS-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465421
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 22:29	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:15	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 17:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/17/2011 23:12	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11322243201A	11/19/2011 12:09	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-006-SA5DS-SS-0.0-0.5RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465422
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	2.0 J	1.1	3.7		1
10225	PCB-1016	12674-11-2	2.1	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.75 J	0.37	1.9		1
10225	PCB-1260	11096-82-5	1.8 J	0.43	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/16/2011 09:54	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011 16:00	JoElla L Rice	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 1 of 1

Sample Description: SL-006-SA5DS-SS-0.0-0.5RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465423
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8302 SDG#: DE283-02RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3		1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3		1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3		1
10225	PCB-1016	12674-11-2	1.9	0.33	1.7		1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7		1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7		1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7		1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7		1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7		1
10225	PCB-1260	11096-82-5	2.0	0.39	1.7		1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7		1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/16/2011 10:13	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011 16:00	JoElla L Rice	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465424
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8303 SDG#: DE283-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenol	108-95-2	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465424
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8303 SDG#: DE283-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	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	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	0.43	J 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.72	U 0.72	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.72	U 0.72	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.72	U 0.72	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.72	U 0.72	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.72	U 0.72	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.4	U 6.4	19		1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19		1
10138	Chrysene	218-01-9	0.53	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	12	J 6.4	19		1
10138	Fluoranthene	206-44-0	0.72	U 0.72	1.8		1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8		1
10138	Naphthalene	91-20-3	0.72	U 0.72	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8		1
10138	Di-n-octylphthalate	117-84-0	9.5	J 6.4	19		1
10138	Phenanthrene	85-01-8	0.72	U 0.72	1.8		1
10138	Pyrene	129-00-0	0.72	U 0.72	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9		1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.9		1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.9		1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.9		1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9		1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.9		1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9		1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9		1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,100	6.34	21.0		1
07914	Boron	7440-42-8	7.74	0.377	5.24		1
01650	Calcium	7440-70-2	2,690	2.62	21.0		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 3 of 5

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465424
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8303 SDG#: DE283-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	27,800	2.74	21.0		1
01656	Lithium	7439-93-2	13.0	0.65	2.1		1
01657	Magnesium	7439-95-4	3,710	0.461	10.5		1
06958	Manganese	7439-96-5	3,560	0.189	2.62		5
10145	Phosphorus	7723-14-0	553	0.367	10.5		1
01662	Potassium	7440-09-7	1,290	11.8	52.4		1
01667	Sodium	7440-23-5	95.0 J	6.24	105		1
07968	Strontium	7440-24-6	22.3	0.0262	0.524		1
06969	Tin	7440-31-5	2.56 J	0.336	10.5		1
06970	Titanium	7440-32-6	880	0.0744	1.05		1
10146	Zirconium	7440-67-7	11.8	0.482	5.24		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.127 J	0.0776	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	8.02	0.0839	0.419		2
06126	Barium	7440-39-3	104	0.111	0.419		2
06127	Beryllium	7440-41-7	0.846	0.0168	0.105		2
06128	Cadmium	7440-43-9	0.182	0.0461	0.105		2
06131	Chromium	7440-47-3	32.7	0.126	0.419		2
06132	Cobalt	7440-48-4	4.92	0.0210	0.105		2
06133	Copper	7440-50-8	3.89	0.0839	0.419		2
06135	Lead	7439-92-1	4.61	0.0107	0.210		2
06138	Molybdenum	7439-98-7	0.647	0.0524	0.105		2
06139	Nickel	7440-02-0	14.0	0.105	0.419		2
06141	Selenium	7782-49-2	0.103 J	0.0608	0.419		2
06142	Silver	7440-22-4	0.0161 J	0.0149	0.105		2
06145	Thallium	7440-28-0	0.150	0.0315	0.105		2
06148	Vanadium	7440-62-2	68.1	0.0231	0.105		2
06149	Zinc	7440-66-6	37.3	0.587	3.15		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0157 J	0.0076	0.108		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.87	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.7		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.62 J	0.22	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465424
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/10/2011 09:00

Suite 210

Reported: 12/08/2011 19:56

Chantilly VA 20151

E8303 SDG#: DE283-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.45	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.3	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011	00:33	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/01/2011	22:56	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011	11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011	11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/16/2011	10:31	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011	16:00	JoElla L Rice	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/21/2011	15:24	Eric L Eby	5
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011	06:18	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011	23:16	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011	23:16	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011	23:16	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011	23:16	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465424
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8303 SDG#: DE283-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 23:16	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 23:16	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 23:16	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:19	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 18:37	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/18/2011 00:48	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11322243201A	11/19/2011 12:30	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465425
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8304 SDG#: DE283-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520		1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500		1
04688	Benzoic acid	65-85-0	200	J 170	520		1
04688	Benzyl alcohol	100-51-6	170	U 170	520		1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170		1
04688	Carbazole	86-74-8	17	U 17	170		1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170		1
04688	4-Chloroaniline	106-47-8	70	U 70	170		1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170		1
04688	bis(2-Chloroethyl) ether	111-44-4	17	U 17	170		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	17	U 17	170		1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170		1
04688	2-Chlorophenol	95-57-8	17	U 17	170		1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170		1
04688	Dibenzofuran	132-64-9	17	U 17	170		1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170		1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170		1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170		1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350		1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170		1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170		1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520		1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000		1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170		1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170		1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170		1
04688	Hexachlorobenzene	118-74-1	17	U 17	170		1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170		1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520		1
04688	Hexachloroethane	67-72-1	17	U 17	170		1
04688	Isophorone	78-59-1	17	U 17	170		1
04688	2-Methylphenol	95-48-7	35	U 35	170		1
04688	4-Methylphenol	106-44-5	35	U 35	170		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170		1
04688	3-Nitroaniline	99-09-2	35	U 35	170		1
04688	4-Nitroaniline	100-01-6	70	U 70	170		1
04688	Nitrobenzene	98-95-3	17	U 17	170		1
04688	2-Nitrophenol	88-75-5	17	U 17	170		1
04688	4-Nitrophenol	100-02-7	170	U 170	520		1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170		1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520		1
04688	Phenol	108-95-2	17	U 17	170		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465425
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8304 SDG#: DE283-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170		1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170		1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	1.0	J 0.70	1.7		1
10138	Acenaphthylene	208-96-8	0.90	J 0.35	1.7		1
10138	Anthracene	120-12-7	11	0.35	1.7		1
10138	Benzo(a)anthracene	56-55-3	15	0.70	1.7		1
10138	Benzo(a)pyrene	50-32-8	12	0.70	1.7		1
10138	Benzo(b)fluoranthene	205-99-2	13	0.70	1.7		1
10138	Benzo(g,h,i)perylene	191-24-2	10	0.70	1.7		1
10138	Benzo(k)fluoranthene	207-08-9	13	0.70	1.7		1
10138	Butylbenzylphthalate	85-68-7	17	J 6.3	19		1
10138	Di-n-butylphthalate	84-74-2	19	6.3	19		1
10138	Chrysene	218-01-9	14	0.35	1.7		1
10138	Dibenz(a,h)anthracene	53-70-3	11	0.70	1.7		1
10138	Diethylphthalate	84-66-2	10	J 6.3	19		1
10138	Dimethylphthalate	131-11-3	6.3	J 6.3	19		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	27	6.3	19		1
10138	Fluoranthene	206-44-0	15	0.70	1.7		1
10138	Fluorene	86-73-7	4.1	0.70	1.7		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	11	0.70	1.7		1
10138	1-Methylnaphthalene	90-12-0	0.70	U 0.70	1.7		1
10138	2-Methylnaphthalene	91-57-6	0.70	U 0.70	1.7		1
10138	Naphthalene	91-20-3	0.70	U 0.70	1.7		1
10138	N-Nitrosodimethylamine	62-75-9	0.70	U 0.70	1.7		1
10138	Di-n-octylphthalate	117-84-0	18	J 6.3	19		1
10138	Phenanthrene	85-01-8	10	0.70	1.7		1
10138	Pyrene	129-00-0	12	0.70	1.7		1

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.5
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.5
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.5
10225	PCB-1016	12674-11-2	0.35	U 0.35	1.8
10225	PCB-1221	11104-28-2	0.35	U 0.35	1.8
10225	PCB-1232	11141-16-5	0.35	U 0.35	1.8
10225	PCB-1242	53469-21-9	0.35	U 0.35	1.8
10225	PCB-1248	12672-29-6	0.35	U 0.35	1.8
10225	PCB-1254	11097-69-1	0.35	U 0.35	1.8
10225	PCB-1260	11096-82-5	0.41	U 0.41	1.8
10225	PCB-1262	37324-23-5	0.35	U 0.35	1.8
10225	PCB-1268	11100-14-4	0.35	U 0.35	1.8

Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	18,900	6.23	20.6

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465425
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8304 SDG#: DE283-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	6.35	0.371	5.15		1
01650	Calcium	7440-70-2	3,360	2.57	20.6		1
01654	Iron	7439-89-6	26,600	2.69	20.6		1
01656	Lithium	7439-93-2	24.0	0.64	2.1		1
01657	Magnesium	7439-95-4	5,850	0.453	10.3		1
06958	Manganese	7439-96-5	289	0.0371	0.515		1
10145	Phosphorus	7723-14-0	478	0.360	10.3		1
01662	Potassium	7440-09-7	1,680	11.6	51.5		1
01667	Sodium	7440-23-5	115	6.13	103		1
07968	Strontium	7440-24-6	23.9	0.0257	0.515		1
06969	Tin	7440-31-5	2.68 J	0.329	10.3		1
06970	Titanium	7440-32-6	985	0.0731	1.03		1
10146	Zirconium	7440-67-7	9.73	0.474	5.15		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.116 J	0.0747	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	5.75	0.0808	0.404		2
06126	Barium	7440-39-3	67.3	0.107	0.404		2
06127	Beryllium	7440-41-7	0.649	0.0162	0.101		2
06128	Cadmium	7440-43-9	0.135	0.0444	0.101		2
06131	Chromium	7440-47-3	40.8	0.121	0.404		2
06132	Cobalt	7440-48-4	6.57	0.0202	0.101		2
06133	Copper	7440-50-8	6.95	0.0808	0.404		2
06135	Lead	7439-92-1	5.91	0.0103	0.202		2
06138	Molybdenum	7439-98-7	0.438	0.0505	0.101		2
06139	Nickel	7440-02-0	13.9	0.101	0.404		2
06141	Selenium	7782-49-2	0.209 J	0.0586	0.404		2
06142	Silver	7440-22-4	0.0210 J	0.0143	0.101		2
06145	Thallium	7440-28-0	0.211	0.0303	0.101		2
06148	Vanadium	7440-62-2	71.1	0.0222	0.101		2
06149	Zinc	7440-66-6	52.4	0.566	3.03		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	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	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.8		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.55 J	0.21	1.1		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

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Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465425
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/10/2011 09:00

Suite 210

Reported: 12/08/2011 19:56

Chantilly VA 20151

E8304 SDG#: DE283-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.50	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	5.7	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011	00:56	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/01/2011	23:31	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011	11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011	11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/16/2011	10:50	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011	16:00	JoElla L Rice	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011	06:22	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011	23:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011	23:04	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011	23:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011	23:04	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465425
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8304 SDG#: DE283-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 23:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 23:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 23:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:21	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 18:51	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/18/2011 01:12	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11322243201A	11/19/2011 12:43	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465426
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8305 SDG#: DE283-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	73	U 73	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	73	U 73	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1
04688	Phenol	108-95-2	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465426
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8305 SDG#: DE283-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8		1
10138	Anthracene	120-12-7	0.47	J 0.37	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.93	J 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.78	J 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	2.0	0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.89	J 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.77	J 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	1.9	0.37	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	21	6.6	20		1
10138	Fluoranthene	206-44-0	2.4	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	0.97	J 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	1.4	J 0.73	1.8		1
10138	Pyrene	129-00-0	1.8	J 0.73	1.8		1

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7
10225	Aroclor 5460	11126-42-4	1.9	J 1.1	3.7
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9
10225	PCB-1254	11097-69-1	0.85	J 0.37	1.9
10225	PCB-1260	11096-82-5	0.68	J 0.44	1.9
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9

Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg
01643	Aluminum	7429-90-5	17,200	6.77	22.4

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465426
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8305 SDG#: DE283-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	7.21	0.403	5.60		1
01650	Calcium	7440-70-2	3,730	2.80	22.4		1
01654	Iron	7439-89-6	23,400	2.92	22.4		1
01656	Lithium	7439-93-2	19.4	0.69	2.2		1
01657	Magnesium	7439-95-4	4,970	0.493	11.2		1
06958	Manganese	7439-96-5	264	0.0403	0.560		1
10145	Phosphorus	7723-14-0	751	0.392	11.2		1
01662	Potassium	7440-09-7	3,110	12.7	56.0		1
01667	Sodium	7440-23-5	100 J	6.66	112		1
07968	Strontium	7440-24-6	26.9	0.0280	0.560		1
06969	Tin	7440-31-5	2.65 J	0.358	11.2		1
06970	Titanium	7440-32-6	964	0.0795	1.12		1
10146	Zirconium	7440-67-7	8.55	0.515	5.60		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0805 U	0.0805	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	4.58	0.0870	0.435		2
06126	Barium	7440-39-3	63.8	0.115	0.435		2
06127	Beryllium	7440-41-7	0.498	0.0174	0.109		2
06128	Cadmium	7440-43-9	0.181	0.0478	0.109		2
06131	Chromium	7440-47-3	33.4	0.130	0.435		2
06132	Cobalt	7440-48-4	5.31	0.0217	0.109		2
06133	Copper	7440-50-8	6.41	0.0870	0.435		2
06135	Lead	7439-92-1	12.3	0.0111	0.217		2
06138	Molybdenum	7439-98-7	0.441	0.0544	0.109		2
06139	Nickel	7440-02-0	9.63	0.109	0.435		2
06141	Selenium	7782-49-2	0.176 J	0.0631	0.435		2
06142	Silver	7440-22-4	0.0262 J	0.0154	0.109		2
06145	Thallium	7440-28-0	0.171	0.0326	0.109		2
06148	Vanadium	7440-62-2	54.5	0.0239	0.109		2
06149	Zinc	7440-66-6	48.5	0.609	3.26		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0143 J	0.0076	0.108		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.90 U	0.90	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.1 J	0.22	1.1		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465426
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/10/2011 09:00

Suite 210

Reported: 12/08/2011 19:56

Chantilly VA 20151

E8305 SDG#: DE283-05FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.16	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.7	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	11320SLK026	12/02/2011	01:20	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011	00:05	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011	11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011	11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113150020A	11/16/2011	11:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113150020A	11/11/2011	16:00	JoElla L Rice	1
01643	Aluminum	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113145708007	11/15/2011	06:26	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113141026003A	11/19/2011	23:07	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113141026003A	11/19/2011	23:07	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113141026003D	11/19/2011	23:07	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113141026003A	11/19/2011	23:07	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 5 of 5

Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465426
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8305 SDG#: DE283-05FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113141026003C	11/19/2011 23:07	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113141026003B	11/19/2011 23:07	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113141026003A	11/19/2011 23:07	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113145711002	11/14/2011 10:22	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113145708007	11/12/2011 11:15	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113141026003	11/12/2011 11:15	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113145711002	11/14/2011 00:20	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 19:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/18/2011 01:37	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11322243201A	11/19/2011 12:50	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: EB-SA5DS-SB-110911 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6465427
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:00

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8306 SDG#: DE283-06EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	1.96	0.544	1.09		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11316WAD026	11/17/2011 08:41	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11316WAD026	11/14/2011 05:30	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-110911 Sand
SSFL Area IV Collocated Soil Sampling
TB

LLI Sample # SW 6465428
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 08:00

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8307 SDG#: DE283-07TB

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS Semivolatiles	EPA 1625C		ng/kg	ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	16.7 U	16.7	33.3		1
Wet Chemistry	EPA 160.3 modified		%	%	%	%	
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11320SLG026	12/03/2011 06:40	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	1	11320SLG026	11/17/2011 07:00	Joseph S Feister	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-110911 Water
SSFL Area IV Collocated Soil Sampling
TB

LLI Sample # WW 6465429
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 08:00

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8308 SDG#: DE283-08TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.478 U	0.478	0.955		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11316WAD026	11/17/2011 09:00	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11316WAD026	11/14/2011 05:30	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-110911 Water
SSFL Area IV Collocated Soil Sampling
TB

LLI Sample # WW 6465430
LLI Group # 1275704
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 08:00

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/08/2011 19:56

Suite 210

Chantilly VA 20151

E8309 SDG#: DE283-09TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11318B20A	11/15/2011 13:46	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11318B20A	11/15/2011 13:46	Marie D John	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11316WAD026 N-Nitrosodimethylamine	Sample number(s): 6465427, 6465429 0.500 U 0.500 1.00			ng/l	97	91	70-130	6	30
Batch number: 11320SLG026 N-Nitrosodimethylamine	Sample number(s): 6465417, 6465428 16.7 U 16.7 33.3			ng/kg	82		70-130		
Batch number: 11320SLJ026	Sample number(s): 6465417-6465420, 6465424-6465426								
Acenaphthene	0.67 U 0.67 1.7			ug/kg	91		63-120		
Acenaphthylene	0.33 U 0.33 1.7			ug/kg	90		60-120		
Anthracene	0.33 U 0.33 1.7			ug/kg	92		73-113		
Benzo(a)anthracene	0.67 U 0.67 1.7			ug/kg	96		74-120		
Benzo(a)pyrene	0.67 U 0.67 1.7			ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67 U 0.67 1.7			ug/kg	111		63-143		
Benzo(g,h,i)perylene	0.67 U 0.67 1.7			ug/kg	106		66-150		
Benzo(k)fluoranthene	0.67 U 0.67 1.7			ug/kg	97		54-142		
Butylbenzylphthalate	6.0 U 6.0 18			ug/kg	93		65-131		
Di-n-butylphthalate	6.0 U 6.0 18			ug/kg	103		75-137		
Chrysene	0.33 U 0.33 1.7			ug/kg	98		73-114		
Dibenz(a,h)anthracene	0.67 U 0.67 1.7			ug/kg	104		53-138		
Diethylphthalate	6.0 U 6.0 18			ug/kg	112		68-125		
Dimethylphthalate	6.0 U 6.0 18			ug/kg	103		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U 6.0 18			ug/kg	100		67-143		
Fluoranthene	0.67 U 0.67 1.7			ug/kg	100		64-120		
Fluorene	0.67 U 0.67 1.7			ug/kg	97		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U 0.67 1.7			ug/kg	105		56-134		
1-Methylnaphthalene	0.67 U 0.67 1.7			ug/kg	87		72-120		
2-Methylnaphthalene	0.67 U 0.67 1.7			ug/kg	87		62-120		
Naphthalene	0.67 U 0.67 1.7			ug/kg	89		67-120		
N-Nitrosodimethylamine	0.67 U 0.67 1.7			ug/kg	71		55-118		
Di-n-octylphthalate	6.0 U 6.0 18			ug/kg	96		68-162		
Phenanthrene	0.67 U 0.67 1.7			ug/kg	93		75-120		
Pyrene	0.67 U 0.67 1.7			ug/kg	90		72-119		
Batch number: 11320SLK026	Sample number(s): 6465417-6465420, 6465424-6465426								
Acenaphthene	17 U 17. 170			ug/kg	95		76-111		
Acenaphthylene	17 U 17. 170			ug/kg	103		75-122		
Aniline	170 U 170. 500			ug/kg	72		20-115		
Anthracene	17 U 17. 170			ug/kg	96		76-112		
Benzidine	1,200 U 1,200. 3,300			ug/kg	43		15-121		
Benzo(a)anthracene	17 U 17. 170			ug/kg	87		73-112		
Benzo(a)pyrene	17 U 17. 170			ug/kg	98		65-124		
Benzo(b)fluoranthene	17 U 17. 170			ug/kg	104		61-127		
Benzo(g,h,i)perylene	17 U 17. 170			ug/kg	91		60-125		
Benzo(k)fluoranthene	17 U 17. 170			ug/kg	98		67-125		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

<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>
Benzoic acid	170 U	170.	500	ug/kg	94		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	90		68-111		
4-Bromophenyl-phenylether	17	U 17.	170	ug/kg	96		73-114		
2-butoxy-Ethanol	1,700 U	1,700.	1,700	ug/kg					
Butylbenzylphthalate	17	U 17.	170	ug/kg	94		75-115		
Di-n-butylphthalate	17	U 17.	170	ug/kg	97		79-112		
Carbazole	17	U 17.	170	ug/kg	93		77-113		
4-Chloro-3-methylphenol	33	U 33.	170	ug/kg	99		74-119		
4-Chloroaniline	67	U 67.	170	ug/kg	51		10-110		
bis(2-Chloroethoxy)methane	17	U 17.	170	ug/kg	92		70-118		
bis(2-Chloroethyl)ether	17	U 17.	170	ug/kg	88		70-104		
bis(2-Chloroisopropyl)ether	17	U 17.	170	ug/kg	86		62-115		
2-Chloronaphthalene	17	U 17.	170	ug/kg	73		49-128		
2-Chlorophenol	17	U 17.	170	ug/kg	95		72-112		
4-Chlorophenyl-phenylether	33	U 33.	170	ug/kg	94		74-115		
Chrysene	17	U 17.	170	ug/kg	89		76-113		
Dibenz(a,h)anthracene	17	U 17.	170	ug/kg	94		61-126		
Dibenzofuran	17	U 17.	170	ug/kg	92		74-116		
1,2-Dichlorobenzene	17	U 17.	170	ug/kg	87		74-99		
1,3-Dichlorobenzene	17	U 17.	170	ug/kg	86		70-98		
1,4-Dichlorobenzene	17	U 17.	170	ug/kg	84		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	48		10-116		
2,4-Dichlorophenol	17	U 17.	170	ug/kg	96		75-111		
Diethylphthalate	17	U 17.	170	ug/kg	96		76-111		
2,4-Dimethylphenol	33	U 33.	170	ug/kg	99		72-111		
3,5-Dimethylphenol	33	U 33.	170	ug/kg	101		83-120		
Dimethylphthalate	17	U 17.	170	ug/kg	96		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	91		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	85		18-133		
2,4-Dinitrotoluene	33	U 33.	170	ug/kg	94		73-115		
2,6-Dinitrotoluene	17	U 17.	170	ug/kg	97		79-115		
1,2-Diphenylhydrazine	17	U 17.	170	ug/kg	103		71-125		
bis(2-Ethylhexyl)phthalate	17	U 17.	330	ug/kg	92		75-117		
Fluoranthene	17	U 17.	170	ug/kg	96		78-116		
Fluorene	17	U 17.	170	ug/kg	96		75-116		
Hexachlorobenzene	17	U 17.	170	ug/kg	95		73-119		
Hexachlorobutadiene	67	U 67.	170	ug/kg	90		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	104		46-115		
Hexachloroethane	17	U 17.	170	ug/kg	88		61-109		
Indeno(1,2,3-cd)pyrene	17	U 17.	170	ug/kg	91		64-119		
Isophorone	17	U 17.	170	ug/kg	93		69-110		
1-Methylnaphthalene	17	U 17.	170	ug/kg	90		74-105		
2-Methylnaphthalene	17	U 17.	170	ug/kg	94		69-109		
2-Methylphenol	33	U 33.	170	ug/kg	98		66-110		
4-Methylphenol	33	U 33.	170	ug/kg	86		66-117		
Naphthalene	17	U 17.	170	ug/kg	92		73-106		
2-Nitroaniline	17	U 17.	170	ug/kg	92		78-116		
3-Nitroaniline	33	U 33.	170	ug/kg	87		62-109		
4-Nitroaniline	67	U 67.	170	ug/kg	66		49-98		
Nitrobenzene	17	U 17.	170	ug/kg	90		66-119		
2-Nitrophenol	17	U 17.	170	ug/kg	90		76-111		

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

<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>
4-Nitrophenol	170 U	170.	500	ug/kg	81		56-118		
N-Nitroso-di-n-propylamine	17	U 17.	170	ug/kg	84		63-107		
N-Nitrosodimethylamine	33	U 33.	170	ug/kg	83		60-106		
N-Nitrosodiphenylamine	17	U 17.	170	ug/kg	99		67-141		
Di-n-octylphthalate	17	U 17.	170	ug/kg	105		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	81		51-117		
Phenanthrene	17	U 17.	170	ug/kg	95		77-113		
Phenol	17	U 17.	170	ug/kg	88		58-112		
2-phenoxy-Ethanol	1,700 U	1,700.	1,700	ug/kg					
Pyrene	17	U 17.	170	ug/kg	97		75-115		
1,2,4-Trichlorobenzene	17	U 17.	170	ug/kg	88		73-108		
2,4,5-Trichlorophenol	33	U 33.	170	ug/kg	90		76-107		
2,4,6-Trichlorophenol	33	U 33.	170	ug/kg	93		78-111		
Batch number: 11313A16B	Sample number(s): 6465417								
9a TPH by EPA 8015B Gas C5-C12	0.2	U 0.2	1.0	mg/kg	78	87	67-119	10	30
Batch number: 11318B20A	Sample number(s): 6465430								
TPH-GRO S.CA water C5-C12	20	U 20.	50	ug/l	100	100	75-135	0	30
Batch number: 113190001A	Sample number(s): 6465417								
4-Amino-2,6-Dinitrotoluene	60	U 60.	120	ug/kg	107		80-120		
2-Amino-4,6-Dinitrotoluene	40	U 40.	120	ug/kg	106		80-120		
2,6-Diamino-4-nitrotoluene	80	U 80.	240	ug/kg	96	90	54-134	6	30
2,4-Diamino-6-nitrotoluene	80	U 80.	240	ug/kg	96	90	54-134	6	30
1,3-Dinitrobenzene	40	U 40.	120	ug/kg	110		51-171		
2,4-Dinitrotoluene	40	U 40.	120	ug/kg	102		72-135		
2,6-Dinitrotoluene	40	U 40.	120	ug/kg	103		80-120		
HMX	100 U	100.	300	ug/kg	91		74-130		
Nitrobenzene	40	U 40.	120	ug/kg	94		80-120		
Nitroglycerin	800 U	800.	2,400	ug/kg	96		80-120		
2-Nitrotoluene	80	U 80.	120	ug/kg	102		78-128		
3-Nitrotoluene	100 U	100.	120	ug/kg	106		73-127		
4-Nitrotoluene	80	U 80.	120	ug/kg	99		80-120		
PETN	800 U	800.	2,400	ug/kg	104		80-120		
RDX	50	U 50.	120	ug/kg	103		75-131		
Tetryl	61	U 61.	120	ug/kg	130		70-168		
1,3,5-Trinitrobenzene	40	U 40.	120	ug/kg	104		77-137		
2,4,6-Trinitrotoluene	40	U 40.	120	ug/kg	109		80-120		
Batch number: 113180003A	Sample number(s): 6465417								
20a Formaldehyde 8315A	600 U	600.	1,500	ug/kg	99		80-126		
Batch number: 113150020A	Sample number(s): 6465417-6465420, 6465422-6465426								
Aroclor 5432	1.0	U 1.0	3.3	ug/kg					
Aroclor 5442	1.0	U 1.0	3.3	ug/kg	71	71	36-106	0	30
Aroclor 5460	1.0	U 1.0	3.3	ug/kg					
PCB-1016	0.33	U 0.33	1.7	ug/kg	79		72-120		
PCB-1221	0.33	U 0.33	1.7	ug/kg					
PCB-1232	0.33	U 0.33	1.7	ug/kg					

*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

<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>
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	86		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: 113180029A	Sample number(s): 6465417								
Ethanol	100 U	100.	500	ug/kg	99		71-129		
Isopropanol	100 U	100.	500	ug/kg	98		75-125		
Methanol	100 U	100.	500	ug/kg	95		68-129		
Batch number: 113200029A	Sample number(s): 6465417								
Diethylene glycol	5.0 U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	106		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 113180012A	Sample number(s): 6465417								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	98		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	99		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	98		69-109		
Batch number: 113190011A	Sample number(s): 6465417								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	101		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	108		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	105		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	115		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	89		49-107		
Batch number: 113141026003A	Sample number(s): 6465417-6465421, 6465424-6465426								
Antimony	0.0733 U	0.0733	0.198	mg/kg	73		40-227		
Arsenic	0.0792 U	0.0792	0.396	mg/kg	99		83-111		
Beryllium	0.0158 U	0.0158	0.0990	mg/kg	100		84-112		
Cadmium	0.0436 U	0.0436	0.0990	mg/kg	98		83-111		
Chromium	0.119 U	0.119	0.396	mg/kg	112		77-123		
Cobalt	0.0198 U	0.0198	0.0990	mg/kg	100		85-114		
Copper	0.0792 U	0.0792	0.396	mg/kg	98		81-110		
Lead	0.0859 J	0.0101	0.198	mg/kg	103		84-112		
Nickel	0.0990 U	0.0990	0.396	mg/kg	99		81-110		
Silver	0.0141 U	0.0141	0.0990	mg/kg	101		83-112		
Thallium	0.0297 U	0.0297	0.0990	mg/kg	102		82-112		
Vanadium	0.0218 U	0.0218	0.0990	mg/kg	101		76-110		
Zinc	1.10 J	0.554	2.97	mg/kg	97		82-110		
Batch number: 113141026003B	Sample number(s): 6465417-6465421, 6465424-6465426								
Selenium	0.0574 U	0.0574	0.396	mg/kg	96		79-110		
Batch number: 113141026003C	Sample number(s): 6465417-6465421, 6465424-6465426								
Molybdenum	0.0495 U	0.0495	0.0990	mg/kg	100		80-110		
Batch number: 113141026003D	Sample number(s): 6465417-6465421, 6465424-6465426								
Barium	0.105 U	0.105	0.396	mg/kg	102		83-110		
Batch number: 113145708007	Sample number(s): 6465417-6465421, 6465424-6465426								
Aluminum	5.99 U	5.99	19.8	mg/kg	83		40-127		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

<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>
Boron	0.356 U	0.356	4.95	mg/kg	101		83-110		
Calcium	3.80 J	2.48	19.8	mg/kg	98		81-110		
Iron	2.81 J	2.58	19.8	mg/kg	85		47-129		
Lithium	0.61 U	0.61	2.0	mg/kg	107		80-120		
Magnesium	0.436 U	0.436	9.90	mg/kg	89		63-116		
Manganese	0.0356 U	0.0356	0.495	mg/kg	96		85-116		
Phosphorus	1.17 J	0.347	9.90	mg/kg	107		80-120		
Potassium	11.2 U	11.2	49.5	mg/kg	99		71-110		
Sodium	5.89 U	5.89	99.0	mg/kg	100		76-110		
Strontium	0.0248 U	0.0248	0.495	mg/kg	99		84-110		
Tin	1.42 J	0.317	9.90	mg/kg	94		86-120		
Titanium	0.0703 U	0.0703	0.990	mg/kg	82		80-120		
Zirconium	0.455 U	0.455	4.95	mg/kg	104		80-120		
Batch number: 113145711002									
Mercury	0.0069 U	0.0069	0.0985	mg/kg	104		83-119		
Batch number: 11318621202A									
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	98		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	97		90-110		
Batch number: 11318621203A									
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	108		85-115		
Batch number: 11320102202A									
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	92		80-120		
Batch number: 11322243201A									
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	85		80-120		
Batch number: 11319039401B									
17a pH by 9045C					100		95-105		
Batch number: 11325162402A									
28a Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Batch number: 11335162401B									
Moisture Content by 160.3					99		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11320SLG026									
N-Nitrosodimethylamine	76	79	70-130	5	30				
Batch number: 11320SLJ026									
Acenaphthene	89	92	63-105	3	30				
Acenaphthylene	89	93	67-114	4	30				

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Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

Sample Matrix Quality Control

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Anthracene	94	94	73-115	1	30				
Benzo(a)anthracene	99	97	59-128	2	30				
Benzo(a)pyrene	77	97	58-142	23	30				
Benzo(b)fluoranthene	78	103	54-163	28	30				
Benzo(g,h,i)perylene	61	88	33-141	35*	30				
Benzo(k)fluoranthene	81	90	57-153	10	30				
Butylbenzylphthalate	129	111	57-173	14	30				
Di-n-butylphthalate	146	121	65-148	19	30				
Chrysene	95	92	67-123	2	30				
Dibenz(a,h)anthracene	73	96	22-133	27	30				
Diethylphthalate	128	120	70-136	6	30				
Dimethylphthalate	106	110	74-118	4	30				
Bis(2-Ethylhexyl)phthalate	151	136	39-167	11	30				
Fluoranthene	112	101	51-149	9	30				
Fluorene	97	98	66-122	2	30				
Indeno(1,2,3-cd)pyrene	70	94	21-143	30	30				
1-Methylnaphthalene	86	85	72-123	2	30				
2-Methylnaphthalene	86	85	64-103	1	30				
Naphthalene	91	88	61-102	3	30				
N-Nitrosodimethylamine	102	86	48-113	18	30				
Di-n-octylphthalate	94	138	40-192	37*	30				
Phenanthrene	95	92	62-122	4	30				
Pyrene	89	85	51-131	4	30				

Batch number: 11320SLK026	Sample number(s): 6465417-6465420, 6465424-6465426 UNSPK: 6465418								
Acenaphthene	103	89	75-115	15	30				
Acenaphthylene	110	95	81-110	14	30				
Aniline	78	62	18-116	22	30				
Anthracene	104	87	75-115	18	30				
Benizidine	0*	18*	35-141	200*	30				
Benzo(a)anthracene	90	78	65-122	14	30				
Benzo(a)pyrene	107	90	57-126	17	30				
Benzo(b)fluoranthene	107	92	59-125	15	30				
Benzo(g,h,i)perylene	97	83	59-127	16	30				
Benzo(k)fluoranthene	100	84	56-132	17	30				
Benzoic acid	102	84	10-173	20	30				
Benzyl alcohol	96	83	67-115	14	30				
4-Bromophenyl-phenylether	107	89	67-129	18	30				
Butylbenzylphthalate	102	87	73-134	16	30				
Di-n-butylphthalate	103	86	67-123	18	30				
Carbazole	98	83	64-120	16	30				
4-Chloro-3-methylphenol	102	88	62-122	15	30				
4-Chloroaniline	55	48	13-107	12	30				
bis(2-Chloroethoxy)methane	98	83	75-104	16	30				
bis(2-Chloroethyl)ether	95	80	60-116	17	30				
bis(2-Chloroisopropyl)ether	93	78	55-142	18	30				
2-Chloronaphthalene	79	67	50-141	16	30				
2-Chlorophenol	101	86	73-121	16	30				
4-Chlorophenyl-phenylether	98	86	80-109	13	30				
Chrysene	93	80	62-128	15	30				
Dibenz(a,h)anthracene	102	86	65-125	17	30				
Dibenzofuran	98	85	71-112	15	30				
1,2-Dichlorobenzene	94	80	66-108	16	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,3-Dichlorobenzene	92	78	63-109	16	30				
1,4-Dichlorobenzene	90	77	58-108	16	30				
3,3'-Dichlorobenzidine	61	49	28-109	22	30				
2,4-Dichlorophenol	103	89	66-123	14	30				
Diethylphthalate	99	87	66-118	13	30				
2,4-Dimethylphenol	105	89	68-118	17	30				
3,5-Dimethylphenol	103	88	71-127	16	30				
Dimethylphthalate	99	87	64-118	13	30				
4,6-Dinitro-2-methylphenol	97	82	11-126	16	30				
2,4-Dinitrophenol	80	73	20-143	10	30				
2,4-Dinitrotoluene	99	87	56-129	13	30				
2,6-Dinitrotoluene	103	89	69-123	14	30				
1,2-Diphenylhydrazine	113	95	71-129	18	30				
bis(2-Ethylhexyl)phthalate	101	85	63-122	17	30				
Fluoranthene	100	85	73-112	16	30				
Fluorene	102	89	63-121	14	30				
Hexachlorobenzene	107	87	77-114	20	30				
Hexachlorobutadiene	97	83	62-120	16	30				
Hexachlorocyclopentadiene	131	92	10-153	35*	30				
Hexachloroethane	93	76	57-109	19	30				
Indeno(1,2,3-cd)pyrene	99	84	61-126	17	30				
Isophorone	98	83	73-102	16	30				
1-Methylnaphthalene	95	82	64-122	15	30				
2-Methylnaphthalene	100	84	76-114	17	30				
2-Methylphenol	105	89	75-111	17	30				
4-Methylphenol	94	79	59-123	17	30				
Naphthalene	99	84	72-116	17	30				
2-Nitroaniline	99	86	67-125	14	30				
3-Nitroaniline	88	80	59-122	10	30				
4-Nitroaniline	79	63	41-109	23	30				
Nitrobenzene	95	81	57-125	16	30				
2-Nitrophenol	98	84	56-127	15	30				
4-Nitrophenol	89	76	37-129	17	30				
N-Nitroso-di-n-propylamine	90	75	60-116	18	30				
N-Nitrosodimethylamine	92	75	47-116	20	30				
N-Nitrosodiphenylamine	110	90	71-122	20	30				
Di-n-octylphthalate	121	102	56-126	17	30				
Pentachlorophenol	73	76	28-127	4	30				
Phenanthrene	105	86	65-125	20	30				
Phenol	94	79	58-126	17	30				
Pyrene	102	89	74-126	13	30				
1,2,4-Trichlorobenzene	96	79	72-115	19	30				
2,4,5-Trichlorophenol	100	86	58-129	15	30				
2,4,6-Trichlorophenol	103	90	56-134	14	30				

Batch number: 113190001A	Sample number(s): 6465417 UNSPK: P462617				
4-Amino-2,6-Dinitrotoluene	79*	92	80-127	15	50
2-Amino-4,6-Dinitrotoluene	76*	88	80-137	15	50
1,3-Dinitrobenzene	83	93	38-166	11	50
2,4-Dinitrotoluene	76*	86	80-131	13	50
2,6-Dinitrotoluene	78*	89	80-127	13	50
HMX	63	76	63-128	19	50
Nitrobenzene	80	81	80-125	0	50

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Quality Control Summary

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Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

Sample Matrix Quality Control

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<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Nitroglycerin	73*	84	80-120	15	50				
2-Nitrotoluene	79*	87	80-122	9	50				
3-Nitrotoluene	83	92	72-119	10	50				
4-Nitrotoluene	78*	85	80-125	9	50				
PETN	75*	89	80-121	18	50				
RDX	70*	83	75-129	16	50				
Tetryl	75	104	55-174	33	50				
1,3,5-Trinitrobenzene	74*	86	82-126	15	50				
2,4,6-Trinitrotoluene	79*	91	82-130	14	50				
Batch number: 113180003A	Sample number(s): 6465417 UNSPK: P462617								
20a Formaldehyde 8315A	98	94	80-120	4	50				
Batch number: 113150020A	Sample number(s): 6465417-6465420,6465422-6465426 UNSPK: 6465418								
PCB-1016	74	79	29-146	7	50				
PCB-1260	85	94	39-149	10	50				
Batch number: 113180029A	Sample number(s): 6465417 UNSPK: 6465417								
Ethanol	93	91	48-130	2	20				
Isopropanol	95	93	12-149	2	20				
Methanol	90	89	43-138	1	20				
Batch number: 113200029A	Sample number(s): 6465417 UNSPK: P461456								
Diethylene glycol	23*	22*	59-109	4	20				
Ethylene glycol	64	65	63-107	1	20				
Propylene glycol	73	73	63-107	1	20				
Batch number: 113180012A	Sample number(s): 6465417 UNSPK: P461454								
m-Terphenyl	101	100	75-125	1	20				
o-Terphenyl	102	101	75-125	1	20				
p-Terphenyl	101	100	75-125	1	20				
Batch number: 113190011A	Sample number(s): 6465417 UNSPK: P462617								
EFH (C12-C14)	85	98	49-123	14	20				
EFH (C15-C20)	99	108	49-123	8	20				
EFH (C21-C30)	102	111	49-123	9	20				
EFH (C30 - C40)	73	86	49-123	11	20				
EFH (C8-C11)	71	79	49-123	10	20				
Batch number: 113141026003A	Sample number(s): 6465417-6465421,6465424-6465426 UNSPK: 6465418 BKG: 6465418								
Antimony	21*	36*	75-125	33*	20	0.182 J	0.104 J	55* (1)	20
Arsenic	62*	165*	75-125	26*	20	5.20	4.27	20	20
Beryllium	68*	128*	75-125	32*	20	0.627	0.508	21*	20
Cadmium	102	144*	75-125	27*	20	0.209	0.154	30* (1)	20
Chromium	14*	159*	75-125	30*	20	37.6	32.0	16	20
Cobalt	79	111	75-125	28*	20	6.00	4.80	22*	20
Copper	88	156*	75-125	34*	20	6.89	6.12	12	20
Lead	2 (2)	218 (2)	75-125	38*	20	13.3	11.4	16	20
Nickel	80	166*	75-125	35*	20	11.2	9.94	12	20
Silver	102	141*	75-125	30*	20	0.0233 J	0.0250 J	7 (1)	20
Thallium	83	145*	75-125	35*	20	0.213	0.166	25* (1)	20
Vanadium	-27 (2)	183 (2)	75-125	29*	20	62.6	53.9	15	20
Zinc	-15 (2)	224 (2)	75-125	36*	20	54.2	48.0	12	20

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Group Number: 1275704

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113141026003B Selenium	Sample number(s): 6465417-6465421, 6465424-6465426 86	120	75-125	28*	20	0.260	J 0.193	J 30* (1)	20
Batch number: 113141026003C Molybdenum	Sample number(s): 6465417-6465421, 6465424-6465426 89	132*	75-125	36*	20	0.434	0.402	8 (1)	20
Batch number: 113141026003D Barium	Sample number(s): 6465417-6465421, 6465424-6465426 -36 (2)	280 (2)	75-125	36*	20	72.8	62.2	16	20
Batch number: 113145708007 Aluminum	Sample number(s): 6465417-6465421, 6465424-6465426 1195	1140	75-125	1	20	15,300	15,100	1	20
Boron	(2)	(2)	84-115	0	20	6.84	6.48	5 (1)	20
Calcium	214 (2)	206 (2)	75-125	1	20	3,290	3,140	5	20
Iron	325 (2)	375 (2)	75-125	0	20	20,900	23,100	10	20
Lithium	100	100	82-114	1	20	17.4	17.2	1	20
Magnesium	174 (2)	153 (2)	75-125	1	20	4,500	4,800	7	20
Manganese	78 (2)	75 (2)	75-125	1	20	250	237	5	20
Phosphorus	63 (2)	73 (2)	75-125	1	20	655	640	2	20
Potassium	116	120	75-125	1	20	2,790	3,030	8	20
Sodium	99	99	75-125	1	20	88.2	J 85.8	J 3 (1)	20
Strontium	101	101	75-115	1	20	23.8	22.6	5	20
Tin	83	83	80-110	1	20	2.43	J 2.42	J 1 (1)	20
Titanium	309 (2)	353 (2)	75-125	3	20	829	822	1	20
Zirconium	90	90	81-110	1	20	7.20	7.81	8 (1)	20
Batch number: 113145711002 Mercury	Sample number(s): 6465417-6465421, 6465424-6465426 87	84	65-135	5	20	0.0129	J 0.0111	J 15 (1)	20
Batch number: 11318621202A 11a Anions by 300.0 - Fluoride	Sample number(s): 6465417-6465419, 6465421, 6465424-6465426 6465418	72*	80-120			0.80	U 0.93	J 200* (1)	20
11a Anions by 300.0 - Nitrate	86		80-120			7.2	7.5	4 (1)	20
Batch number: 11318621203A 7a Perchlorate EPA 314.0	Sample number(s): 6465417-6465419, 6465421, 6465424-6465426 6465418	115	80-120			9.0	U 9.0	U 0 (1)	15
Batch number: 11320102202A 16a Cyanide by 9012B	Sample number(s): 6465417 UNSPK: P462617 BKG: P462617 100		75-125			0.18	U 0.18	U 0 (1)	20
Batch number: 11322243201A 3a Cr VI by EPA 7199	Sample number(s): 6465417-6465419, 6465421, 6465424-6465426 6465418	95	75-125			0.20	U 0.69	J 200* (1)	20
Batch number: 11319039401B 17a pH by 9045C	Sample number(s): 6465417-6465418, 6465421, 6465424-6465426 6.27					6.21		1	3
Batch number: 11325162402A 28a Moisture Content by 160.3	Sample number(s): 6465418-6465422, 6465424-6465426, 6465428 10.3					10.3		1	20
Moisture Content by 160.3	10.3					10.3		1	20
Moisture Content by 160.3	10.3					10.3		1	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: 11335162401B Moisture Content by 160.3				Sample number(s): 6465417	BKG: P463909	7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 21b. NDMA in Water

Batch number: 11316WAD026

N-Nitrosodimethylamine-
d6

6465427	111
6465429	113
Blank	137
LCS	134
LCSD	140

Limits: 50-150

Analysis Name: 21a NDMA by 1625C

Batch number: 11320SLG026

N-Nitrosodimethylamine-
d6

6465417	106
6465428	130
Blank	144
LCS	138
MS	125
MSD	120

Limits: 50-150

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11320SLJ026

Nitrobenzene-d5

2-Fluorobiphenyl

Terphenyl-d14

6465417	126	87	86
6465418	121	87	85
6465419	126	84	80
6465420	123	86	84
6465424	126	89	91
6465425	140*	99	191*
6465426	143*	92	87
Blank	113	86	92
LCS	119	88	90
MS	126	84	80

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

Surrogate Quality Control

MSD	123	86	84
Limits:	40-130	45-130	45-135

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11320SLK026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6465417	97	99	97	88	94	85
6465418	94	95	101	88	95	85
6465419	99	101	100	93	98	91
6465420	87	89	92	81	88	80
6465424	97	98	102	90	96	91
6465425	99	101	99	90	95	93
6465426	100	100	102	91	99	91
Blank	88	93	92	86	91	89
LCS	93	95	95	87	91	83
MS	99	101	100	93	98	91
MSD	87	89	92	81	88	80
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12

Batch number: 11313A16B

Trifluorotoluene-F

6465417	91
Blank	87
LCS	84
LCSD	93

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12

Batch number: 11318B20A

Trifluorotoluene-F

6465430	92
Blank	92
LCS	118
LCSD	118

Limits: 63-135

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 113150020A

Tetrachloro-m-xylene Decachlorobiphenyl

6465417	99	91
6465418	89	86
6465419	85	88
6465420	93	99
6465422	94	87
6465423	93	90
6465424	93	91
6465425	96	91
6465426	92	82

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

Surrogate Quality Control

Blank	90	97
LCS	89	96
LCSD	96	102
MS	85	88
MSD	93	99

Limits: 53-139 53-142

Analysis Name: 20a Formaldehyde 8315A
Batch number: 113180003A
Butyraldehyde

6465417	88
Blank	95
LCS	85
MS	80
MSD	79

Limits: 64-126

Analysis Name: 15a Energetics by 8330A
Batch number: 113190001A
2-Nitro-m-xylene

6465417	94
Blank	105
LCS	104
LCSD	103
MS	86
MSD	86

Limits: 80-146

Analysis Name: 22a Terphenyls by 8015B
Batch number: 113180012A
n-Triacontane-d62

6465417	77
Blank	79
LCS	76
MS	78
MSD	78

Limits: 19-152

Analysis Name: 18a Alcohols by 8015B
Batch number: 113180029A
Acetone

6465417	87
Blank	86
LCS	87
MS	82
MSD	84

Limits: 42-138

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/08/11 at 07:56 PM

Group Number: 1275704

Surrogate Quality Control

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 113190011A

	Chlorobenzene	Orthoterphenyl
6465417	73	88
Blank	71	89
LCS	78	94
MS	68	85
MSD	68	87

Limits: 37-125 47-145

Analysis Name: 19a Glycols by 8015B
Batch number: 113200029A
Tetramethylene glycol

6465417	88
Blank	102
LCS	102
MS	91
MSD	92

Limits: 29-137

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct #13013 Cp# 1275704

Sample # 6465417-30

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary										Secondary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on all in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 8010/6020/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex. Chlorine EPA 7199	*pH EPA 9045/9040B	Perchlorate Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**h-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Deionals EPA 8270	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-005-SA5DS-SB-1.5	11.09.11	1310	SOIL	NONE	1-SS Sleeve											X											
SL-005-SA5DS-SB-1.0-2.0	11.09.11	1305	SOIL	NONE	1-SS Sleeve			X	X																		
SL-005-SA5DS-SB-1.0-2.0	11.09.11	1305	SOIL	NONE	2-16 oz Jar	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X	X		
SL-006-SA5DS-SS-0.0-0.5MS	11.09.11	1335	SOIL	NONE	2-SS Sleeve			X	X																MS/MSD		
SL-006-SA5DS-SS-0.0-0.5MS	11.09.11	1335	SOIL	NONE	2-16 oz Jar	X	X			X	X	X	X												MS/MSD		
SL-021-SA5DS-SB-2.0-3.0	11.09.11	0955	SOIL	NONE	1-SS Sleeve			X	X																		
SL-021-SA5DS-SB-2.0-3.0	11.09.11	0955	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X														
SL-022-SA5DS-SB-4.0-5.0	11.09.11	1115	SOIL	NONE	1-SS Sleeve			X	X																		
SL-022-SA5DS-SB-4.0-5.0	11.09.11	1115	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X														
DUP04-SA5DS-QC-110911	11.09.11	1340	SOIL	NONE	1-SS Sleeve			X	X																		
DUP04-SA5DS-QC-110911	11.09.11	1340	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X														
EB-SA5DS-SB-110911	11.09.11	1300	WATER	NONE	1-1 L Amber													X									
TB-110911	11.09.11	0800	SOIL	NONE	1-8 oz Jar													X									
TB-110911	11.09.11	0800	WATER	NONE	1-1 L Amber													X									
TB-110911	11.09.11	0800	WATER	NONE	2-40 mL vials									X													
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																				Laboratory:			
		11/09/2011 / 1630																						Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s)																							
				8767 9857 4916																				0900			

Suzette Lehman 11/10/11

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 02, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/10/2011

Group Number: 1275706

SDG: DX154

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-005-SA5DS-SB-1.0-2.0 Soil
SL-006-SA5DS-SS-0.0-0.5 Soil
SL-006-SA5DS-SS-0.0-0.5MS Soil
SL-006-SA5DS-SS-0.0-0.5MSD Soil
SL-021-SA5DS-SB-2.0-3.0 Soil
SL-022-SA5DS-SB-4.0-5.0 Soil
DUP04-SA5DS-QC-110911 SoilLancaster Labs (LLI) #6465435
6465436
6465437
6465438
6465439
6465440
6465441

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465435
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5416 SDG#: DX154-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	5.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 2 of 4

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465435
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5416 SDG#: DX154-16

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	0.0258 J	0.0243	1.05	1
11031	12378-PeCDD	40321-76-4	0.0403 JBQ	0.0248	5.26	1
11031	123478-HxCDD	39227-28-6	0.0358 JB	0.0197	5.26	1
11031	123678-HxCDD	57653-85-7	0.257 JB	0.0202	5.26	1
11031	123789-HxCDD	19408-74-3	0.424 JB	0.0207	5.26	1
11031	1234678-HpCDD	35822-46-9	0.880 JB	0.0189	5.26	1
11031	OCDD	3268-87-9	6.06 JB	0.0266	10.5	1
11031	2378-TCDF	51207-31-9	0.0475 J	0.0243	1.05	1
11031	12378-PeCDF	57117-41-6	0.0745 JB	0.0122	5.26	1
11031	23478-PeCDF	57117-31-4	0.0669 JB	0.0124	5.26	1
11031	123478-HxCDF	70648-26-9	0.0655 JB	0.0156	5.26	1
11031	123678-HxCDF	57117-44-9	0.0526 JB	0.0136	5.26	1
11031	123789-HxCDF	72918-21-9	0.126 JB	0.0141	5.26	1
11031	234678-HxCDF	60851-34-5	0.103 JBQ	0.0119	5.26	1
11031	1234678-HpCDF	67562-39-4	0.278 JB	0.00919	5.26	1
11031	1234789-HpCDF	55673-89-7	0.0280 JB	0.0137	5.26	1
11031	OCDF	39001-02-0	0.433 JB	0.0241	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	99	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	83	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465435
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5416 SDG#: DX154-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-005-SA5DS-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA5DS-SB

LLI Sample # SW 6465435
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:05

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5416 SDG#: DX154-16

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11319002	11/17/2011 11:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11319002	11/15/2011 10:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465436
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5417 SDG#: DX154-17BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465436
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5417 SDG#: DX154-17BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0534 J	0.0271	1.10	1
11031	12378-PeCDD	40321-76-4	0.185 JBQ	0.0337	5.52	1
11031	123478-HxCDD	39227-28-6	0.112 JB	0.0292	5.52	1
11031	123678-HxCDD	57653-85-7	0.903 JB	0.0293	5.52	1
11031	123789-HxCDD	19408-74-3	1.32 JB	0.0282	5.52	1
11031	1234678-HpCDD	35822-46-9	4.09 JB	0.0324	5.52	1
11031	OCDD	3268-87-9	38.5 B	0.0342	11.0	1
11031	2378-TCDF	51207-31-9	0.124 J	0.0513	1.10	1
11031	12378-PeCDF	57117-41-6	0.293 JB	0.0260	5.52	1
11031	23478-PeCDF	57117-31-4	0.252 JB	0.0253	5.52	1
11031	123478-HxCDF	70648-26-9	0.353 JBQ	0.0208	5.52	1
11031	123678-HxCDF	57117-44-9	0.215 JBQ	0.0187	5.52	1
11031	123789-HxCDF	72918-21-9	0.501 JB	0.0212	5.52	1
11031	234678-HxCDF	60851-34-5	0.240 JBQ	0.0182	5.52	1
11031	1234678-HpCDF	67562-39-4	0.950 JB	0.0158	5.52	1
11031	1234789-HpCDF	55673-89-7	0.0967 JB	0.0210	5.52	1
11031	OCDF	39001-02-0	1.87 JB	0.0227	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	89	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	84	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	83	26 - 138
13C12-OCDF	87	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465436
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

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X5417 SDG#: DX154-17BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465436
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

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Reported: 12/02/2011 09:08

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X5417 SDG#: DX154-17BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11319002	11/17/2011 12:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11319002	11/15/2011 10:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465437
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

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X5417 SDG#: DX154-17MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465437
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

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X5417 SDG#: DX154-17MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	23.5	0.0447	1.08	1
11031	12378-PeCDD	40321-76-4	114 B	0.0535	5.38	1
11031	123478-HxCDD	39227-28-6	113 B	0.0614	5.38	1
11031	123678-HxCDD	57653-85-7	106 B	0.0484	5.38	1
11031	123789-HxCDD	19408-74-3	111 B	0.0482	5.38	1
11031	1234678-HpCDD	35822-46-9	113 B	0.0571	5.38	1
11031	OCDD	3268-87-9	251 B	0.0679	10.8	1
11031	2378-TCDF	51207-31-9	22.4	0.0673	1.08	1
11031	12378-PeCDF	57117-41-6	112 B	0.0367	5.38	1
11031	23478-PeCDF	57117-31-4	104 B	0.0388	5.38	1
11031	123478-HxCDF	70648-26-9	105 B	0.0689	5.38	1
11031	123678-HxCDF	57117-44-9	105 B	0.0593	5.38	1
11031	123789-HxCDF	72918-21-9	107 B	0.0754	5.38	1
11031	234678-HxCDF	60851-34-5	104 B	0.0612	5.38	1
11031	1234678-HpCDF	67562-39-4	99.5 B	0.0396	5.38	1
11031	1234789-HpCDF	55673-89-7	103 B	0.0643	5.38	1
11031	OCDF	39001-02-0	212 B	0.0596	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	90	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	101	28 - 130
13C12-123789-HxCDD	100	28 - 130
13C12-1234678-HpCDD	100	23 - 140
13C12-OCDD	106	17 - 157
13C12-2378-TCDF	92	24 - 169
13C12-12378-PeCDF	106	24 - 185
13C12-23478-PeCDF	93	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	111	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	84	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465437
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

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Submitted: 11/10/2011 09:00

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X5417 SDG#: DX154-17MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-006-SA5DS-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465437
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

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Submitted: 11/10/2011 09:00

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X5417 SDG#: DX154-17MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11319002	11/17/2011 13:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11319002	11/15/2011 10:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465438
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

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Reported: 12/02/2011 09:08

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X5417 SDG#: DX154-17MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465438
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

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Submitted: 11/10/2011 09:00

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X5417 SDG#: DX154-17MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	24.4	0.0348	1.10	1
11031	12378-PeCDD	40321-76-4	119 B	0.0468	5.50	1
11031	123478-HxCDD	39227-28-6	113 B	0.0700	5.50	1
11031	123678-HxCDD	57653-85-7	112 B	0.0784	5.50	1
11031	123789-HxCDD	19408-74-3	117 B	0.0581	5.50	1
11031	1234678-HpCDD	35822-46-9	116 B	0.0570	5.50	1
11031	OCDD	3268-87-9	262 B	0.0642	11.0	1
11031	2378-TCDF	51207-31-9	23.1	0.0625	1.10	1
11031	12378-PeCDF	57117-41-6	114 B	0.0365	5.50	1
11031	23478-PeCDF	57117-31-4	108 B	0.0379	5.50	1
11031	123478-HxCDF	70648-26-9	108 B	0.0647	5.50	1
11031	123678-HxCDF	57117-44-9	108 B	0.0575	5.50	1
11031	123789-HxCDF	72918-21-9	109 B	0.0658	5.50	1
11031	234678-HxCDF	60851-34-5	109 B	0.0580	5.50	1
11031	1234678-HpCDF	67562-39-4	101 B	0.0467	5.50	1
11031	1234789-HpCDF	55673-89-7	105 B	0.0605	5.50	1
11031	OCDF	39001-02-0	217 B	0.0536	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	84	24 - 169
13C12-12378-PeCDF	90	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	85	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465438
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

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Reported: 12/02/2011 09:08

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Chantilly VA 20151

X5417 SDG#: DX154-17MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-006-SA5DS-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA5DS-SS

LLI Sample # SW 6465438
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:35

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

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Reported: 12/02/2011 09:08

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X5417 SDG#: DX154-17MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11319002	11/17/2011 14:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11319002	11/15/2011 10:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465439
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

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Submitted: 11/10/2011 09:00

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Reported: 12/02/2011 09:08

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X5418 SDG#: DX154-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	8.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465439
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

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Reported: 12/02/2011 09:08

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X5418 SDG#: DX154-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0329 U	0.0329	1.05	1
11031	12378-PeCDD	40321-76-4	0.0252 U	0.0252	5.24	1
11031	123478-HxCDD	39227-28-6	0.0197 U	0.0197	5.24	1
11031	123678-HxCDD	57653-85-7	0.0716 JB	0.0201	5.24	1
11031	123789-HxCDD	19408-74-3	0.144 JBQ	0.0201	5.24	1
11031	1234678-HpCDD	35822-46-9	0.469 JB	0.0227	5.24	1
11031	OCDD	3268-87-9	2.31 JB	0.0231	10.5	1
11031	2378-TCDF	51207-31-9	0.0200 U	0.0200	1.05	1
11031	12378-PeCDF	57117-41-6	0.0493 JBQ	0.0113	5.24	1
11031	23478-PeCDF	57117-31-4	0.0885 JB	0.0108	5.24	1
11031	123478-HxCDF	70648-26-9	0.0554 JB	0.0153	5.24	1
11031	123678-HxCDF	57117-44-9	0.0541 JB	0.0138	5.24	1
11031	123789-HxCDF	72918-21-9	0.0829 JB	0.0144	5.24	1
11031	234678-HxCDF	60851-34-5	0.0544 JB	0.0143	5.24	1
11031	1234678-HpCDF	67562-39-4	0.215 JBQ	0.0113	5.24	1
11031	1234789-HpCDF	55673-89-7	0.0622 JB	0.0143	5.24	1
11031	OCDF	39001-02-0	0.201 JBQ	0.0233	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	99	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	85	26 - 138
13C12-OCDF	91	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465439
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

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Chantilly VA 20151

X5418 SDG#: DX154-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-021-SA5DS-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA5DS-SB

LLI Sample # SW 6465439
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 09:55

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5418 SDG#: DX154-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11319002	11/17/2011 18:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11319002	11/15/2011 10:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465440
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5419 SDG#: DX154-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465440
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

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X5419 SDG#: DX154-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0252 U	0.0252	1.04	1
11031	12378-PeCDD	40321-76-4	0.0398 JBQ	0.0207	5.21	1
11031	123478-HxCDD	39227-28-6	0.0287 JBQ	0.0171	5.21	1
11031	123678-HxCDD	57653-85-7	0.122 JB	0.0189	5.21	1
11031	123789-HxCDD	19408-74-3	0.154 JB	0.0186	5.21	1
11031	1234678-HpCDD	35822-46-9	0.270 JB	0.0181	5.21	1
11031	OCDD	3268-87-9	0.810 JB	0.0216	10.4	1
11031	2378-TCDF	51207-31-9	0.0278 JQ	0.0187	1.04	1
11031	12378-PeCDF	57117-41-6	0.0359 JB	0.00997	5.21	1
11031	23478-PeCDF	57117-31-4	0.101 JB	0.00954	5.21	1
11031	123478-HxCDF	70648-26-9	0.0399 JBQ	0.0115	5.21	1
11031	123678-HxCDF	57117-44-9	0.0381 JB	0.00986	5.21	1
11031	123789-HxCDF	72918-21-9	0.187 JB	0.0120	5.21	1
11031	234678-HxCDF	60851-34-5	0.0439 JBQ	0.00986	5.21	1
11031	1234678-HpCDF	67562-39-4	0.111 JB	0.00923	5.21	1
11031	1234789-HpCDF	55673-89-7	0.0415 JB	0.0134	5.21	1
11031	OCDF	39001-02-0	0.159 JB	0.0246	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	91	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	90	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465440
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5419 SDG#: DX154-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-022-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA5DS-SB

LLI Sample # SW 6465440
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 11:15

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

Suite 210

Chantilly VA 20151

X5419 SDG#: DX154-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11319002	11/17/2011 19:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11319002	11/15/2011 10:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465441
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

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X5420 SDG#: DX154-20FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	10.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465441
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

14420 Albemarle Point Place

Reported: 12/02/2011 09:08

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X5420 SDG#: DX154-20FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0565 JQ	0.0335	1.10	1
11031	12378-PeCDD	40321-76-4	0.209 JB	0.0385	5.52	1
11031	123478-HxCDD	39227-28-6	0.121 JBQ	0.0317	5.52	1
11031	123678-HxCDD	57653-85-7	0.974 JB	0.0339	5.52	1
11031	123789-HxCDD	19408-74-3	1.25 JB	0.0321	5.52	1
11031	1234678-HpCDD	35822-46-9	4.28 JB	0.0345	5.52	1
11031	OCDD	3268-87-9	39.2 B	0.0309	11.0	1
11031	2378-TCDF	51207-31-9	0.0637 U	0.0637	1.10	1
11031	12378-PeCDF	57117-41-6	0.407 JB	0.0305	5.52	1
11031	23478-PeCDF	57117-31-4	0.503 JB	0.0303	5.52	1
11031	123478-HxCDF	70648-26-9	0.321 JB	0.0243	5.52	1
11031	123678-HxCDF	57117-44-9	0.217 JB	0.0226	5.52	1
11031	123789-HxCDF	72918-21-9	0.467 JBQ	0.0274	5.52	1
11031	234678-HxCDF	60851-34-5	0.230 JB	0.0230	5.52	1
11031	1234678-HpCDF	67562-39-4	0.991 JB	0.0167	5.52	1
11031	1234789-HpCDF	55673-89-7	0.117 JBQ	0.0245	5.52	1
11031	OCDF	39001-02-0	1.85 JB	0.0275	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	106	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	90	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465441
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

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Reported: 12/02/2011 09:08

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X5420 SDG#: DX154-20FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Sample Description: DUP04-SA5DS-QC-110911 Soil
SSFL Area IV Collocated Soil Sampling
DUP04-SA5DS

LLI Sample # SW 6465441
LLI Group # 1275706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2011 13:40

CDM Federal Programs Corp.

Submitted: 11/10/2011 09:00

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Reported: 12/02/2011 09:08

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X5420 SDG#: DX154-20FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11319002	11/17/2011 20:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11319002	11/15/2011 10:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1275706

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11325162402A Moisture Content by 160.3	Sample number(s): 6465436-6465441				100		80-120		
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6465435				99		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11319002	Sample number(s): 6465435-6465441								
2378-TCDD	0.0272 U	0.0272	1.00	ng/kg	114		67-158		
12378-PeCDD	0.0260 J	0.0212	5.00	ng/kg	108		70-142		
123478-HxCDD	0.0224 J	0.0150	5.00	ng/kg	102		70-164		
123678-HxCDD	0.0198 J	0.0156	5.00	ng/kg	96		76-134		
123789-HxCDD	0.0284 J	0.0158	5.00	ng/kg	103		64-162		
1234678-HpCDD	0.267 J	0.0177	5.00	ng/kg	101		70-140		
OCDD	0.422 J	0.0216	10.0	ng/kg	97		78-144		
2378-TCDF	0.0192 U	0.0192	1.00	ng/kg	110		75-158		
12378-PeCDF	0.0450 J	0.0103	5.00	ng/kg	103		80-134		
23478-PeCDF	0.0512 J	0.0106	5.00	ng/kg	96		68-160		
123478-HxCDF	0.0400 J	0.0126	5.00	ng/kg	99		72-134		
123678-HxCDF	0.0391 J	0.00990	5.00	ng/kg	98		84-130		
123789-HxCDF	0.0503 J	0.0128	5.00	ng/kg	99		78-130		
234678-HxCDF	0.0566 J	0.0111	5.00	ng/kg	97		70-156		
1234678-HpCDF	0.139 J	0.00770	5.00	ng/kg	91		82-122		
1234789-HpCDF	0.0420 J	0.0129	5.00	ng/kg	98		78-138		
OCDF	0.183 J	0.0246	10.0	ng/kg	98		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11325162402A Moisture Content by 160.3	Sample number(s): 6465436-6465441					BKG: P465418 10.3	10.3	1	20
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6465435					BKG: P463909 7.6	7.4	2	20
Batch number: 11319002	Sample number(s): 6465435-6465441					UNSPK: 6465436			

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1275706

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	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2378-TCDD	109	110	67-158	3	25				
12378-PeCDD	106	108	70-142	5	25				
123478-HxCDD	105	103	70-164	1	25				
123678-HxCDD	98	101	76-134	6	25				
123789-HxCDD	102	105	64-162	5	25				
1234678-HpCDD	101	102	70-140	3	25				
OCDD	99	101	78-144	4	25				
2378-TCDF	104	104	75-158	3	25				
12378-PeCDF	104	103	80-134	1	25				
23478-PeCDF	97	98	68-160	4	25				
123478-HxCDF	97	98	72-134	3	25				
123678-HxCDF	98	98	84-130	2	25				
123789-HxCDF	99	99	78-130	2	25				
234678-HxCDF	97	99	70-156	5	25				
1234678-HpCDF	92	91	82-122	2	25				
1234789-HpCDF	96	95	78-138	2	25				
OCDF	98	98	63-170	2	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11319002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6465435	72	84	67	79	81	79
6465436	79	86	70	79	84	83
6465437	90	93	82	92	90	82
6465438	79	81	74	81	82	81
6465439	70	86	75	80	80	88
6465440	75	82	70	80	82	79
6465441	71	77	73	82	82	77
Blank	74	79	66	80	72	74
MS	90	93	82	92	90	82
MSD	79	81	74	81	82	81
OPR	66	74	65	79	70	66
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6465435	96	79	83	83	84	87
6465436	92	83	87	82	87	89
6465437	111	82	84	95	75	101
6465438	94	80	85	79	72	71
6465439	93	85	91	81	82	82
6465440	97	75	80	82	91	88
6465441	99	80	90	74	89	87

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1275706

Surrogate Quality Control

Blank	105	72	76	83	82	84
MS	111	82	84	95	75	101
MSD	94	80	85	79	72	71
OPR	106	67	73	80	81	82
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6465435	84	91	99	79	92	
6465436	89	90	97	84	91	
6465437	100	100	106	92	106	
6465438	88	89	97	84	90	
6465439	83	91	99	79	91	
6465440	86	90	97	79	90	
6465441	85	90	106	79	87	
Blank	83	93	100	71	90	
MS	100	100	106	92	106	
MSD	88	89	97	84	90	
OPR	81	90	100	65	85	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct #13013 Cp #1275706

Sample # 6465435-41

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA V COLLOCATED SOIL SAMPLING						Primary										Secondary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels ‡ Moisture by EPA 800.3 will be performed on soil in 16 oz. Jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SAS) & Subarea 7 (SAS) also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/8208/8474/1A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chlorine EPA 7189	*pH EPA 8045C/8040B	Perchlorate Confirmation by EPA 6950 (10%)	TPH-GRO EPA 8015B ‡	**TPH-LEFH EPA 8015B Mod.	**Nitrites EPA 300.0	**Formaldehyde EPA 8315A	**NDMA EPA 1625C	**Energolux EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downal EPA 8270	
Samplers Signatures: <i>Carl M. [Signature]</i>																											
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-005-SA5DS-SB-1.5	11.09.11	1310	SOIL	NONE	1-SS Sleeve																						
SL-005-SA5DS-SB-1.0-2.0	11.09.11	1305	SOIL	NONE	1-SS Sleeve			X	X																		
SL-005-SA5DS-SB-1.0-2.0	11.09.11	1305	SOIL	NONE	2-16 oz Jar	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X			
SL-006-SA5DS-SS-0.0-0.5MS	11.09.11	1335	SOIL	NONE	2-SS Sleeve			X	X															MS/MSD			
SL-006-SA5DS-SS-0.0-0.5MS	11.09.11	1335	SOIL	NONE	2-16 oz Jar	X	X			X	X	X	X											MS/MSD			
SL-021-SA5DS-SB-2.0-3.0	11.09.11	0955	SOIL	NONE	1-SS Sleeve			X	X																		
SL-021-SA5DS-SB-2.0-3.0	11.09.11	0955	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X														
SL-022-SA5DS-SB-4.0-5.0	11.09.11	1115	SOIL	NONE	1-SS Sleeve			X	X																		
SL-022-SA5DS-SB-4.0-5.0	11.09.11	1115	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X														
DUP04-SA5DS-QC-110911	11.09.11	1340	SOIL	NONE	1-SS Sleeve			X	X																		
DUP04-SA5DS-QC-110911	11.09.11	1340	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X														
EB-SA5DS-SB-110911	11.09.11	1300	WATER	NONE	1-1 L Amber												X										
TB-110911	11.09.11	0800	SOIL	NONE	1-8 oz Jar													X									
TB-110911	11.09.11	0800	WATER	NONE	1-1 L Amber												X										
TB-110911	11.09.11	0800	WATER	NONE	2-40 mL vials									X													
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																				Laboratory:			
<i>[Signature]</i>		11/09/2011 / 1630		<i>[Signature]</i>																				Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s)																							
<i>[Signature]</i>				8767 9857 4916																							
						<i>Shirley Lehman 11/18/11</i>																		0900			

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 06, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/11/2011
Group Number: 1275974
SDG: DE284
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CAClient Sample Description

EB-SA5DS-SB-111011 Water

Lancaster Labs (LLI) #

6466779

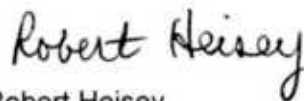
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC
COPY TO
1 COPY TOCDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466779
LLI Group # 1275974
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

Submitted: 11/11/2011 09:00

14420 Albemarle Point Place

Reported: 12/06/2011 11:20

Suite 210

Chantilly VA 20151

E8401 SDG#: DE284-01EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles EPA 1625C		ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	2.12	0.515	1.03		1
GC/MS	Semivolatiles SW-846 8270C		ug/l	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1	U	1	5	1
04678	Benzidine	92-87-5	20	U	20	60	1
04678	Benzoic acid	65-85-0	6	U	6	15	1
04678	Benzyl alcohol	100-51-6	5	U	5	15	1
04678	4-Bromophenyl-phenylether	101-55-3	1	U	1	5	1
04678	Carbazole	86-74-8	1	U	1	5	1
04678	4-Chloro-3-methylphenol	59-50-7	1	U	1	5	1
04678	4-Chloroaniline	106-47-8	1	U	1	5	1
04678	bis(2-Chloroethoxy)methane	111-91-1	1	U	1	5	1
04678	bis(2-Chloroethyl)ether	111-44-4	1	U	1	5	1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1	U	1	5	1
04678	2-Chloronaphthalene	91-58-7	2	U	2	5	1
04678	2-Chlorophenol	95-57-8	1	U	1	5	1
04678	4-Chlorophenyl-phenylether	7005-72-3	2	U	2	5	1
04678	Dibenzofuran	132-64-9	1	U	1	5	1
04678	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
04678	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
04678	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
04678	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
04678	2,4-Dichlorophenol	120-83-2	1	U	1	5	1
04678	2,4-Dimethylphenol	105-67-9	3	U	3	10	1
04678	3,5-Dimethylphenol	108-68-9	3	U	3	10	1
04678	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
04678	2,4-Dinitrophenol	51-28-5	10	U	10	30	1
04678	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
04678	2,6-Dinitrotoluene	606-20-2	1	U	1	5	1
04678	1,2-Diphenylhydrazine	122-66-7	1	U	1	5	1
04678	Hexachlorobenzene	118-74-1	1	U	1	5	1
04678	Hexachlorobutadiene	87-68-3	1	U	1	5	1
04678	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
04678	Hexachloroethane	67-72-1	1	U	1	5	1
04678	Isophorone	78-59-1	1	U	1	5	1
04678	2-Methylphenol	95-48-7	1	U	1	5	1
04678	4-Methylphenol	106-44-5	2	U	2	5	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04678	2-Nitroaniline	88-74-4	1	U	1	5	1
04678	3-Nitroaniline	99-09-2	1	U	1	5	1
04678	4-Nitroaniline	100-01-6	1	U	1	5	1
04678	Nitrobenzene	98-95-3	1	U	1	5	1
04678	2-Nitrophenol	88-75-5	1	U	1	5	1
04678	4-Nitrophenol	100-02-7	10	U	10	30	1
04678	N-Nitroso-di-n-propylamine	621-64-7	1	U	1	5	1
04678	N-Nitrosodiphenylamine	86-30-6	2	U	2	5	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 2 of 7

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466779
LLI Group # 1275974
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

Submitted: 11/11/2011 09:00

14420 Albemarle Point Place

Reported: 12/06/2011 11:20

Suite 210

Chantilly VA 20151

E8401 SDG#: DE284-01EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04678	Pentachlorophenol	87-86-5	3 U	3	15		1
04678	Phenol	108-95-2	1 U	1	5		1
04678	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
04678	2,4,5-Trichlorophenol	95-95-4	1 U	1	5		1
04678	2,4,6-Trichlorophenol	88-06-2	1 U	1	5		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.010 U	0.010	0.050		1
10137	Acenaphthylene	208-96-8	0.010 U	0.010	0.050		1
10137	Anthracene	120-12-7	0.010 U	0.010	0.050		1
10137	Benzo(a)anthracene	56-55-3	0.010 U	0.010	0.050		1
10137	Benzo(a)pyrene	50-32-8	0.010 U	0.010	0.050		1
10137	Benzo(b)fluoranthene	205-99-2	0.010 U	0.010	0.050		1
10137	Benzo(g,h,i)perylene	191-24-2	0.010 U	0.010	0.050		1
10137	Benzo(k)fluoranthene	207-08-9	0.010 U	0.010	0.050		1
10137	Butylbenzylphthalate	85-68-7	0.050 U	0.050	1.0		1
10137	Di-n-butylphthalate	84-74-2	0.36 J	0.050	1.0		1
10137	Chrysene	218-01-9	0.010 U	0.010	0.050		1
10137	Dibenz(a,h)anthracene	53-70-3	0.010 U	0.010	0.050		1
10137	Diethylphthalate	84-66-2	0.097 J	0.050	1.0		1
10137	Dimethylphthalate	131-11-3	0.050 U	0.050	1.0		1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.050 U	0.050	1.0		1
10137	Fluoranthene	206-44-0	0.010 U	0.010	0.050		1
10137	Fluorene	86-73-7	0.010 U	0.010	0.050		1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.010 U	0.010	0.050		1
10137	1-Methylnaphthalene	90-12-0	0.010 U	0.010	0.050		1
10137	2-Methylnaphthalene	91-57-6	0.010 U	0.010	0.050		1
10137	Naphthalene	91-20-3	0.030 U	0.030	0.050		1
10137	N-Nitrosodimethylamine	62-75-9	0.010 U	0.010	0.050		1
10137	Di-n-octylphthalate	117-84-0	0.050 U	0.050	1.0		1
10137	Phenanthrene	85-01-8	0.030 U	0.030	0.050		1
10137	Pyrene	129-00-0	0.010 U	0.010	0.050		1
GC Volatiles	TPH GRO	SW-8015B	ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1
Explosives	SW-846 8330A		ug/l	ug/l	ug/l	ug/l	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.30 U	0.30	0.60	1000000 0	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.20 U	0.20	0.60	1000000 0	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.20 U	0.20	0.60	1000000 0	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.20 U	0.20	0.60	1000000 0	1

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Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 7

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466779
LLI Group # 1275974
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

Submitted: 11/11/2011 09:00

14420 Albemarle Point Place

Reported: 12/06/2011 11:20

Suite 210

Chantilly VA 20151

E8401 SDG#: DE284-01EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/l		ug/l	ug/l	ug/l	
10131	1,3-Dinitrobenzene	99-65-0	0.20	U	0.20	0.60	1000000 0	1
10131	2,4-Dinitrotoluene	121-14-2	0.20	U	0.20	0.60	1000000 0	1
10131	2,6-Dinitrotoluene	606-20-2	0.20	U	0.20	0.60	1000000 0	1
10131	HMX	2691-41-0	0.65	U	0.65	2.0	1000000 0	1
10131	Nitrobenzene	98-95-3	0.20	U	0.20	0.60	1000000 0	1
10131	Nitroglycerin	55-63-0	5.2	U	5.2	15	1000000 0	1
10131	2-Nitrotoluene	88-72-2	0.20	U	0.20	0.60	1000000 0	1
10131	3-Nitrotoluene	99-08-1	0.40	U	0.40	1.2	1000000 0	1
10131	4-Nitrotoluene	99-99-0	0.60	U	0.60	1.2	1000000 0	1
10131	PETN	78-11-5	6.0	U	6.0	18	1000000 0	1
10131	RDX	121-82-4	0.76		0.20	0.60	1000000 0	1
10131	Tetryl	479-45-8	0.40	U	0.40	0.60	1000000 0	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.20	U	0.20	0.60	1000000 0	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.20	U	0.20	0.60	1000000 0	1
HPLC Organics		SW-846 8315A	ug/l		ug/l	ug/l	ug/l	
04144	20b Formaldehyde 8315A	50-00-0	78		10	50		1
Pesticides/PCBs		SW-846 8082	ug/l		ug/l	ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.12	U	0.12	0.61		1
10227	Aroclor 5442	12642-23-8	0.12	U	0.12	0.61		1
10227	Aroclor 5460	11126-42-4	0.12	U	0.12	0.61		1
10227	PCB-1016	12674-11-2	0.12	U	0.12	0.61		1
10227	PCB-1221	11104-28-2	0.12	U	0.12	0.61		1
10227	PCB-1232	11141-16-5	0.24	U	0.24	0.61		1
10227	PCB-1242	53469-21-9	0.12	U	0.12	0.61		1
10227	PCB-1248	12672-29-6	0.12	U	0.12	0.61		1
10227	PCB-1254	11097-69-1	0.12	U	0.12	0.61		1
10227	PCB-1260	11096-82-5	0.18	U	0.18	0.61		1
10227	PCB-1262	37324-23-5	0.24	U	0.24	0.61		1
10227	PCB-1268	11100-14-4	0.19	U	0.19	0.61		1
GC Miscellaneous		SW-846 8015B	ug/l		ug/l	ug/l	ug/l	
06624	Ethanol	64-17-5	200	U	200	1,000		1
06624	Isopropanol	67-63-0	200	U	200	1,000		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466779
LLI Group # 1275974
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

Submitted: 11/11/2011 09:00

14420 Albemarle Point Place

Reported: 12/06/2011 11:20

Suite 210

Chantilly VA 20151

E8401 SDG#: DE284-01EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC Miscellaneous		SW-846 8015B	ug/l		ug/l	ug/l	ug/l	
06624	Methanol	67-56-1	200	U	200	1,000		1
GC Miscellaneous		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
08278	Diethylene glycol	111-46-6	20	U	20	200		1
08278	Ethylene glycol	107-21-1	20	U	20	200		1
08278	Propylene glycol	57-55-6	20	U	20	200		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/l		mg/l	mg/l	mg/l	
10319	m-Terphenyl	92-06-8	0.084	U	0.084	0.26		1
10319	o-Terphenyl	84-15-1	0.084	U	0.084	0.26		1
10319	p-Terphenyl	92-94-4	0.084	U	0.084	0.26		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
10365	EFH (C12-C14)	n.a.	0.11	U	0.11	0.64		1
10365	EFH (C15-C20)	n.a.	0.11	U	0.11	0.64		1
10365	EFH (C21-C30)	n.a.	0.11	U	0.11	0.64		1
10365	EFH (C30 - C40)	n.a.	0.11	U	0.11	0.64		1
10365	EFH (C8-C11)	n.a.	0.11	U	0.11	0.64		1
Metals		SW-846 6010B	mg/l		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801	U	0.0801	0.200		1
08014	Boron	7440-42-8	0.0061	J	0.0022	0.0500		1
01750	Calcium	7440-70-2	0.0705	U	0.0705	0.200		1
01754	Iron	7439-89-6	0.0141	U	0.0141	0.200		1
01756	Lithium	7439-93-2	0.0076	U	0.0076	0.0200		1
01757	Magnesium	7439-95-4	0.0067	U	0.0067	0.100		1
07058	Manganese	7439-96-5	0.00044	U	0.00044	0.0050		1
10143	Phosphorus	7723-14-0	0.0047	U	0.0047	0.100		1
01762	Potassium	7440-09-7	0.0874	U	0.0874	0.500		1
01767	Sodium	7440-23-5	0.0647	U	0.0647	1.00		1
08068	Strontium	7440-24-6	0.00026	J	0.00022	0.0050		1
07069	Tin	7440-31-5	0.0043	U	0.0043	0.0200		1
07070	Titanium	7440-32-6	0.00046	U	0.00046	0.0100		1
10144	Zirconium	7440-67-7	0.0042	U	0.0042	0.0500		1
		SW-846 6020	mg/l		mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042	U	0.00042	0.0010		1
06025	Arsenic	7440-38-2	0.00095	U	0.00095	0.0020		1
06026	Barium	7440-39-3	0.00069	U	0.00069	0.0020		1
06027	Beryllium	7440-41-7	0.00013	U	0.00013	0.00050		1
06028	Cadmium	7440-43-9	0.00020	U	0.00020	0.00050		1
06031	Chromium	7440-47-3	0.00060	U	0.00060	0.0020		1
06032	Cobalt	7440-48-4	0.00010	U	0.00010	0.00050		1
06033	Copper	7440-50-8	0.00038	U	0.00038	0.0020		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 5 of 7

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466779
LLI Group # 1275974
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

Submitted: 11/11/2011 09:00

14420 Albemarle Point Place

Reported: 12/06/2011 11:20

Suite 210

Chantilly VA 20151

E8401 SDG#: DE284-01EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6020	mg/l	mg/l	mg/l	mg/l	
06035	Lead	7439-92-1	0.000080 U	0.000080	0.0010		1
06038	Molybdenum	7439-98-7	0.00028 J	0.00025	0.00050		1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020		1
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020		1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050		1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050		1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050		1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150		1
		SW-846 7470A	mg/l	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000058 J	0.000026	0.00020		1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10		1
00368	11b Anions by 300.0 - Nitrate	14797-55-8	0.050 U	0.050	0.10		1
		EPA 314.0	ug/l	ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0		1
		SW-846 7199	ug/l	ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0		1
		SW-846 9012B	mg/l	mg/l	mg/l	mg/l	
08255	16b Cyanide by 9012B	57-12-5	0.0050 U	0.0050	0.010		1
		SW-846 9040B	Std. Units	Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.5	0.010	0.010		1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11316WAD026	11/17/2011 09:19	Matthew S Woods	1
04678	5b Semivolatiles by EPA 8270C	SW-846 8270C	1	11319WAC026	11/30/2011 21:45	Jennifer R Riggs	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11319WAF026	11/16/2011 20:22	Dale R Stoneroad	1
00813	BNA Water Extraction	SW-846 3510C	1	11319WAC026	11/15/2011 17:45	Nicholas W Shroyer	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466779
LLI Group # 1275974
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/11/2011 09:00

Suite 210

Reported: 12/06/2011 11:20

Chantilly VA 20151

E8401 SDG#: DE284-01EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10466	BNA Water Extraction SIM	SW-846 3510C	1	11319WAF026	11/15/2011 21:30	Elaine F Stoltzfus	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11316WAD026	11/14/2011 05:30	David V Hershey Jr	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11318B20A	11/15/2011 14:08	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11318B20A	11/15/2011 14:08	Marie D John	1
10131	15b Energetics by 8330A	SW-846 8330A	1	113190024A	11/19/2011 12:01	James H Place	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	113150018A	11/15/2011 18:44	James H Place	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	113200021A	11/18/2011 20:10	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	113200021A	11/17/2011 09:00	William H Saadeh	1
01013	Formaldehyde Extraction	SW-846 8315A	1	113150018A	11/12/2011 11:00	Sally L Appleyard	1
11122	Energetics Extraction	SW-846 8330	1	113190024A	11/16/2011 15:00	Kelli M Barto	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	113180030A	11/14/2011 19:56	Elizabeth J Marin	1
08278	19b Glycols by 8015B	SW-846 8015B	1	113180027A	11/14/2011 23:22	Tyler O Griffin	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	113190033A	11/18/2011 13:53	Robert Brown	1
10365	9b TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113190034A	11/18/2011 07:31	Heather E Williams	1
11203	EPH Waters Extraction	SW-846 3510C	1	113190034A	11/16/2011 10:00	Catherine R Wiker	1
10304	Terphenyls water prep	SW-846 3510C	1	113190033A	11/16/2011 10:00	Cynthia J Salvatori	1
01743	Aluminum	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
08014	Boron	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
01754	Iron	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
01756	Lithium	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
10143	Phosphorus	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
01762	Potassium	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
01767	Sodium	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
08068	Strontium	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
07069	Tin	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
07070	Titanium	SW-846 6010B	1	113261848002	11/28/2011 13:36	Joanne M Gates	1
10144	Zirconium	SW-846 6010B	1	113261848002	11/26/2011 09:06	Eric L Eby	1
06024	Antimony	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06026	Barium	SW-846 6020	1	113266050003D	11/29/2011 17:32	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06033	Copper	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06035	Lead	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	113266050003C	11/29/2011 17:32	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	113266050003B	11/29/2011 17:32	Choon Y Tian	1
06042	Silver	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466779
LLI Group # 1275974
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

Submitted: 11/11/2011 09:00

14420 Albemarle Point Place

Reported: 12/06/2011 11:20

Suite 210

Chantilly VA 20151

E8401 SDG#: DE284-01EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06048	Vanadium	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	113266050003A	11/29/2011 17:32	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	113185713005	11/15/2011 09:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113261848002	11/23/2011 09:52	Denise K Conners	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	113266050003	11/23/2011 09:48	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	113185713005	11/14/2011 15:18	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11315196601B	11/11/2011 21:34	Ashley M Adams	1
00368	11b Anions by 300.0 - Nitrate	EPA 300.0	1	11315196601B	11/11/2011 21:34	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	11315281101A	11/11/2011 15:37	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11315281401A	11/11/2011 11:00	Elyse P Brunstetter	1
08255	16b Cyanide by 9012B	SW-846 9012B	1	11319117101B	11/16/2011 08:43	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012B	1	11319117101B	11/15/2011 16:10	Carolyn M Mastropietro	1
00200	17b pH by 9040B	SW-846 9040B	1	11320020001A	11/16/2011 17:45	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 11:20 AM

Group Number: 1275974

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11316WAD026	Sample number(s): 6466779								
N-Nitrosodimethylamine	0.500 U	0.500	1.00	ng/l	97	91	70-130	6	30
Batch number: 11319WAC026	Sample number(s): 6466779								
Aniline	1 U	1.	5	ug/l	67	69	38-116	3	30
Benzidine	20 U	20.	60	ug/l	63	66	34-117	5	30
Benzoic acid	6 U	6.	15	ug/l	37	38	10-69	3	30
Benzyl alcohol	5 U	5.	15	ug/l	73	74	66-97	1	30
4-Bromophenyl-phenylether	1 U	1.	5	ug/l	104	104	75-115	0	30
Carbazole	1 U	1.	5	ug/l	96	95	75-120	1	30
4-Chloro-3-methylphenol	1 U	1.	5	ug/l	90	91	70-123	1	30
4-Chloroaniline	1 U	1.	5	ug/l	64	63	24-128	1	30
bis(2-Chloroethoxy)methane	1 U	1.	5	ug/l	86	84	74-124	1	30
bis(2-Chloroethyl)ether	1 U	1.	5	ug/l	87	88	77-108	1	30
bis(2-Chloroisopropyl)ether	1 U	1.	5	ug/l	73	75	62-127	2	30
2-Chloronaphthalene	2 U	2.	5	ug/l	100	95	54-132	5	30
2-Chlorophenol	1 U	1.	5	ug/l	90	90	71-114	1	30
4-Chlorophenyl-phenylether	2 U	2.	5	ug/l	98	96	77-114	2	30
Dibenzofuran	1 U	1.	5	ug/l	94	91	75-117	4	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	87	84	55-118	4	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	85	80	61-111	7	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	86	82	53-119	5	30
3,3'-Dichlorobenzidine	2 U	2.	5	ug/l	63	61	37-117	3	30
2,4-Dichlorophenol	1 U	1.	5	ug/l	100	99	77-117	1	30
2,4-Dimethylphenol	3 U	3.	10	ug/l	90	92	72-110	2	30
3,5-Dimethylphenol	3 U	3.	10	ug/l	96	94	70-130	1	30
4,6-Dinitro-2-methylphenol	5 U	5.	15	ug/l	96	98	65-126	1	30
2,4-Dinitrophenol	10 U	10.	30	ug/l	94	93	52-131	0	30
2,4-Dinitrotoluene	1 U	1.	5	ug/l	99	97	76-119	2	30
2,6-Dinitrotoluene	1 U	1.	5	ug/l	102	98	76-118	4	30
1,2-Diphenylhydrazine	1 U	1.	5	ug/l	86	85	68-127	1	30
Hexachlorobenzene	1 U	1.	5	ug/l	104	100	75-119	4	30
Hexachlorobutadiene	1 U	1.	5	ug/l	96	85	57-124	12	30
Hexachlorocyclopentadiene	5 U	5.	15	ug/l	82	79	36-118	4	30
Hexachloroethane	1 U	1.	5	ug/l	79	75	52-113	5	30
Isophorone	1 U	1.	5	ug/l	90	89	74-117	1	30
2-Methylphenol	1 U	1.	5	ug/l	79	81	58-110	3	30
4-Methylphenol	2 U	2.	5	ug/l	72	72	49-108	0	30
2-Nitroaniline	1 U	1.	5	ug/l	97	94	75-120	3	30
3-Nitroaniline	1 U	1.	5	ug/l	92	91	74-113	1	30
4-Nitroaniline	1 U	1.	5	ug/l	75	73	59-100	2	30
Nitrobenzene	1 U	1.	5	ug/l	90	86	75-109	5	30
2-Nitrophenol	1 U	1.	5	ug/l	97	99	76-118	2	30
4-Nitrophenol	10 U	10.	30	ug/l	40	37	16-78	8	30
N-Nitroso-di-n-propylamine	1 U	1.	5	ug/l	81	82	69-110	1	30
N-Nitrosodiphenylamine	2 U	2.	5	ug/l	98	96	67-136	2	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 11:20 AM

Group Number: 1275974

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Pentachlorophenol	3 U	3.	15	ug/l	106	106	53-110	0	30
Phenol	1 U	1.	5	ug/l	41	41	21-67	1	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	96	90	71-112	6	30
2,4,5-Trichlorophenol	1 U	1.	5	ug/l	96	95	79-107	1	30
2,4,6-Trichlorophenol	1 U	1.	5	ug/l	99	98	76-120	2	30

Batch number: 11319WAF026	Sample number(s): 6466779								
Acenaphthene	0.010 U	0.010	0.050	ug/l	99	108	74-109	9	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	101	111*	70-110	9	30
Anthracene	0.010 U	0.010	0.050	ug/l	103	112*	66-111	8	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	101	110	72-114	9	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	101	111	60-127	9	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	104	117	58-151	12	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	103	113	57-131	10	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	100	107	59-130	6	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	104	115	40-138	10	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	112	125	56-148	11	30
Chrysene	0.010 U	0.010	0.050	ug/l	98	107	76-116	8	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	104	115	55-134	10	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	111	123	37-148	11	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	106	117	40-119	10	30
Bis(2-Ethylhexyl)phthalate	0.060 J	0.050	1.0	ug/l	109	122	57-154	12	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	103	112	75-116	8	30
Fluorene	0.010 U	0.010	0.050	ug/l	106	115*	75-114	8	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	102	113	53-158	10	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	96	105	71-117	9	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	95	103	75-115	8	30
Naphthalene	0.030 U	0.030	0.050	ug/l	97	106	72-109	9	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	57	58	36-89	3	30
Di-n-octylphthalate	0.050 U	0.050	1.0	ug/l	94	104	57-145	10	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	100	107	76-111	7	30
Pyrene	0.010 U	0.010	0.050	ug/l	95	103	69-118	8	30

Batch number: 11318B20A	Sample number(s): 6466779								
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	100	100	75-135	0	30

Batch number: 113190024A	Sample number(s): 6466779								
4-Amino-2,6-Dinitrotoluene	0.30 U	0.30	0.60	ug/l	110	100	80-120	10	30
2-Amino-4,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	100	96	80-120	4	30
2,6-Diamino-4-nitrotoluene	0.20 U	0.20	0.60	ug/l	97	97	50-122	0	30
2,4-Diamino-6-nitrotoluene	0.20 U	0.20	0.60	ug/l	97	97	50-122	0	30
1,3-Dinitrobenzene	0.20 U	0.20	0.60	ug/l	100	100	72-117	0	30
2,4-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	96	94	80-120	2	30
2,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	100	100	80-120	0	30
HMX	0.65 U	0.65	2.0	ug/l	98	96	65-125	2	30
Nitrobenzene	0.20 U	0.20	0.60	ug/l	87	88	75-121	1	30
Nitroglycerin	5.2 U	5.2	15	ug/l	96	96	80-120	0	30
2-Nitrotoluene	0.20 U	0.20	0.60	ug/l	93	91	74-120	2	30
3-Nitrotoluene	0.40 U	0.40	1.2	ug/l	98	96	69-107	2	30
4-Nitrotoluene	0.60 U	0.60	1.2	ug/l	92	90	80-120	2	30
PETN	6.0 U	6.0	18	ug/l	104	100	80-120	4	30
RDX	0.20 U	0.20	0.60	ug/l	95	94	70-125	1	30
Tetryl	0.40 U	0.40	0.60	ug/l	100	92	31-148	8	30
1,3,5-Trinitrobenzene	0.20 U	0.20	0.60	ug/l	88	85	53-129	3	30
2,4,6-Trinitrotoluene	0.20 U	0.20	0.60	ug/l	100	100	76-109	0	30

Batch number: 113150018A	Sample number(s): 6466779								
20b Formaldehyde 8315A	10 U	10.	50	ug/l	90	104	69-130	14	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 11:20 AM

Group Number: 1275974

<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: 113200021A	Sample number(s): 6466779								
Aroclor 5432	0.10 U	0.10	0.50	ug/l					
Aroclor 5442	0.10 U	0.10	0.50	ug/l	72	66	35-84	9	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	80	82	51-128	2	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	88	88	56-135	0	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					
Batch number: 113180027A	Sample number(s): 6466779								
Diethylene glycol	20 U	20.	200	mg/l	110		67-126		
Ethylene glycol	20 U	20.	200	mg/l	105		78-136		
Propylene glycol	20 U	20.	200	mg/l	105		65-132		
Batch number: 113180030A	Sample number(s): 6466779								
Ethanol	200 U	200.	1,000	ug/l	96		78-116		
Isopropanol	200 U	200.	1,000	ug/l	96		75-125		
Methanol	200 U	200.	1,000	ug/l	84		76-122		
Batch number: 113190033A	Sample number(s): 6466779								
m-Terphenyl	0.080 U	0.080	0.25	mg/l	100	96	61-108	4	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	100	96	75-125	4	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	98	96	63-110	2	20
Batch number: 113190034A	Sample number(s): 6466779								
EFH (C12-C14)	0.10 U	0.10	0.60	mg/l	90	90	63-121	0	30
EFH (C15-C20)	0.10 U	0.10	0.60	mg/l	105	101	72-124	4	30
EFH (C21-C30)	0.10 U	0.10	0.60	mg/l	100	92	64-123	8	30
EFH (C30 - C40)	0.10 U	0.10	0.60	mg/l	107	107	73-124	0	30
EFH (C8-C11)	0.10 U	0.10	0.60	mg/l	72	76	43-107	5	30
Batch number: 113185713005	Sample number(s): 6466779								
Mercury	0.000047 J	0.00002	0.00020	mg/l	103	90	80-120	13	20
Batch number: 113261848002	Sample number(s): 6466779								
Aluminum	0.0801 U	0.0801	0.200	mg/l	105	101	90-112	4	20
Boron	0.0042 J	0.0022	0.0500	mg/l	95	95	89-110	0	20
Calcium	0.0705 U	0.0705	0.200	mg/l	103	102	90-110	1	20
Iron	0.0173 J	0.0141	0.200	mg/l	102	101	90-112	0	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	103	101	90-110	2	20
Magnesium	0.0327 J	0.0067	0.100	mg/l	101	100	90-110	1	20
Manganese	0.00044 U	0.00044	0.0050	mg/l	100	100	90-110	0	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	99	99	90-110	1	20
Potassium	0.0912 J	0.0874	0.500	mg/l	102	101	85-115	1	20
Sodium	0.0647 U	0.0647	1.00	mg/l	101	100	87-114	1	20
Strontium	0.00029 J	0.00022	0.0050	mg/l	99	100	90-110	1	20
Tin	0.0043 U	0.0043	0.0200	mg/l	99	99	90-110	1	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	100	100	90-113	0	20

*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 11:20 AM

Group Number: 1275974

<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>
Zirconium	0.0042 U	0.0042	0.0500	mg/l	102	102	90-110	1	20
Batch number: 113266050003A Sample number(s): 6466779									
Antimony	0.00042 U	0.00042	0.0010	mg/l	113*	104	87-110	9	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	103	110	86-111	6	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	109	107	90-113	1	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	112	106	90-114	6	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	113	109	90-118	3	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	106	105	87-113	1	20
Copper	0.00038 U	0.00038	0.0020	mg/l	108	109	90-113	1	20
Lead	0.000080 U	0.00008	0.0010	mg/l	104	106	90-115	2	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	111	107	90-113	4	20
Silver	0.000098 U	0.00009	0.00050	mg/l	106	109	90-115	2	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	101	108	89-116	7	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	110	107	89-116	3	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	104	109	90-116	5	20
Batch number: 113266050003B Sample number(s): 6466779									
Selenium	0.00027 U	0.00027	0.0020	mg/l	111	111	85-114	1	20
Batch number: 113266050003C Sample number(s): 6466779									
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	105	107	89-115	3	20
Batch number: 113266050003D Sample number(s): 6466779									
Barium	0.00069 U	0.00069	0.0020	mg/l	106	103	88-113	2	20
Batch number: 11315196601B Sample number(s): 6466779									
11b Anions by 300.0 - Fluoride	0.080 U	0.080	0.10	mg/l	101	100	90-110	1	20
11b Anions by 300.0 - Nitrate	0.050 U	0.050	0.10	mg/l	99	98	90-110	1	20
Batch number: 11315281101A Sample number(s): 6466779									
7b Perchlorate EPA 314.0	0.70 U	0.70	2.0	ug/l	111	98	85-115	13	20
Batch number: 11315281401A Sample number(s): 6466779									
3b Cr VI by EPA 7199	5.0 U	5.0	10.0	ug/l	101	100	90-110	1	20
Batch number: 11319117101B Sample number(s): 6466779									
16b Cyanide by 9012B	0.0050 U	0.0050	0.010	mg/l	96	96	90-110	0	20
Batch number: 11320020001A Sample number(s): 6466779									
17b pH by 9040B					100	100	90-110	0	3

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: 113180027A Sample number(s): 6466779 UNSPK: P461381									
Diethylene glycol	100	115	83-130	14	20				
Ethylene glycol	85*	115	89-125	30*	20				

*- 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: 12/06/11 at 11:20 AM

Group Number: 1275974

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Propylene glycol	80*	120	91-128	40*	20			
Batch number: 113180030A	Sample number(s): 6466779 UNSPK: P467068							
Ethanol	108	104	62-145	4	20			
Isopropanol	108	108	73-131	0	20			
Methanol	108	100	52-159	8	20			

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 21b. NDMA in Water

Batch number: 11316WAD026

N-Nitrosodimethylamine-
d6

6466779	115
Blank	137
LCS	134
LCSD	140

Limits: 50-150

Analysis Name: 5b Semivolatiles by EPA 8270C

Batch number: 11319WAC026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6466779	51	31	98	77	85	86
Blank	56	36	100	81	87	87
LCS	57	36	103	83	89	85
LCSD	56	35	98	81	86	83

Limits: 20-130 20-120 30-130 40-130 45-130 45-135

Analysis Name: 4b Select SVOC EPA 8270SIM

Batch number: 11319WAF026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6466779	122	94	102
Blank	100	94	101
LCS	103	95	97
LCSD	113	103	105

Limits: 40-130 45-130 45-135

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12

Batch number: 11318B20A

Trifluorotoluene-F

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 11:20 AM

Group Number: 1275974

Surrogate Quality Control

6466779 93
Blank 92
LCS 118
LCSD 118

Limits: 63-135

Analysis Name: 20b Formaldehyde 8315A
Batch number: 113150018A
Butyraldehyde

6466779 115
Blank 117
LCS 89
LCSD 109

Limits: 45-145

Analysis Name: 15b Energetics by 8330A
Batch number: 113190024A
2-Nitro-m-xylene

6466779 89
Blank 89
LCS 87
LCSD 84

Limits: 50-134

Analysis Name: 8b PCBs/PCTs by 8082
Batch number: 113200021A
Tetrachloro-m-xylene Decachlorobiphenyl

6466779	94	100
Blank	87	89
LCS	90	92
LCSD	93	97

Limits: 30-150 45-120

Analysis Name: 19b Glycols by 8015B
Batch number: 113180027A
Tetramethylene glycol

6466779 103
Blank 109
LCS 114
MS 110
MSD 121

Limits: 29-157

Analysis Name: 18b Alcohols by 8015B
Batch number: 113180030A
Acetone

6466779 92

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 11:20 AM

Group Number: 1275974

Surrogate Quality Control

Blank 92
LCS 93
MS 95
MSD 96

Limits: 54-147

Analysis Name: 22b Terphenyls by 8015B
Batch number: 113190033A
n-Triacontane-d62

6466779 77
Blank 76
LCS 76
LCSD 74

Limits: 17-138

Analysis Name: 9b TPH by EPA 8015B Oil/Diesel
Batch number: 113190034A
Chlorobenzene Orthoterphenyl

6466779	76	93
Blank	63	82
LCS	78	104
LCSD	78	100

Limits: 28-152 52-131

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

acct #13013 Cyp #1215974

Sample # 6466779

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary										Secondary										Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 5 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/6020/8474/1A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8062	*Dioxin/Furan EPA 1631B	*Pesticides EPA 314.0	*Hex. Chrome EPA 7109	*pH EPA 8045C/9040B	Pesticide Confirmation by EPA 6850 (10%)	*TPH-GRO EPA 8015B \$	*TPH-EFH EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*1,1-NDMA EPA 1625C	*Emergents EPA 8330A	*Cyanides EPA 9012B	*Terphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B		*Dioxins EPA 8270
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NONE	10-1 liter ambers			X	X	X					X			X	X		X					
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NONE	1-500 mL poly		X			X	X	X														
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	HNO3	1-500 mL poly	X																				
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NaOH	1-500 mL poly															X						
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NONE	1-250 mL glass												X									
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	HCL	11-40 mL vials									X									X			
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NONE	4-40 mL vials											X						X				
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)												Laboratory: LLI												
		11/10/2011 / 1630														Lancaster Laboratories, Inc.												
Received by: (Signature)		Date/Time		Airbill No.(s)												11/11/11 0900												
																Suzette Lehman												

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 21, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/11/2011
Group Number: 1276007
SDG: DX154
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CAClient Sample Description

EB-SA5DS-SB-111011 Water

Lancaster Labs (LLI) #

6466891

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 2

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466891
LLI Group # 1276007
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

Submitted: 11/11/2011 09:00

14420 Albemarle Point Place

Reported: 11/21/2011 22:24

Suite 210

Chantilly VA 20151

X5421 SDG#: DX154-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	pg/l		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.454	U	0.454	2.01	1
10915	12378-PeCDD	40321-76-4	0.461	U	0.461	10.1	1
10915	123478-HxCDD	39227-28-6	0.318	U	0.318	10.1	1
10915	123678-HxCDD	57653-85-7	0.698	JB	0.328	10.1	1
10915	123789-HxCDD	19408-74-3	0.333	U	0.333	10.1	1
10915	1234678-HpCDD	35822-46-9	4.71	JB	0.433	10.1	1
10915	OCDD	3268-87-9	8.05	JBQ	0.431	20.1	1
10915	2378-TCDF	51207-31-9	0.363	JQ	0.329	2.01	1
10915	12378-PeCDF	57117-41-6	0.360	JBQ	0.209	10.1	1
10915	23478-PeCDF	57117-31-4	0.392	JBQ	0.181	10.1	1
10915	123478-HxCDF	70648-26-9	0.739	JBQ	0.238	10.1	1
10915	123678-HxCDF	57117-44-9	0.724	JBQ	0.226	10.1	1
10915	123789-HxCDF	72918-21-9	0.297	JB	0.251	10.1	1
10915	234678-HxCDF	60851-34-5	0.733	JB	0.215	10.1	1
10915	1234678-HpCDF	67562-39-4	3.74	JB	0.204	10.1	1
10915	1234789-HpCDF	55673-89-7	0.265	JBQ	0.226	10.1	1
10915	OCDF	39001-02-0	3.11	JB	0.545	20.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	46	25 - 164
13C12-12378-PeCDD	42	25 - 181
13C12-123478-HxCDD	40	32 - 141
13C12-123678-HxCDD	41	28 - 130
13C12-123789-HxCDD	40	28 - 130
13C12-1234678-HpCDD	43	23 - 140
13C12-OCDD	47	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	47	24 - 185
13C12-23478-PeCDF	48	21 - 178
13C12-123478-HxCDF	39	26 - 152
13C12-123678-HxCDF	40	26 - 123
13C12-234678-HxCDF	43	28 - 136
13C12-123789-HxCDF	43	29 - 147
13C12-1234678-HpCDF	42	28 - 143
13C12-1234789-HpCDF	43	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 2 of 2

Sample Description: EB-SA5DS-SB-111011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA5DS-SB

LLI Sample # WW 6466891
LLI Group # 1276007
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2011 13:30

CDM Federal Programs Corp.

Submitted: 11/11/2011 09:00

14420 Albemarle Point Place

Reported: 11/21/2011 22:24

Suite 210

Chantilly VA 20151

X5421 SDG#: DX154-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
S	Saturation of detection signal					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	11319001	11/16/2011 22:20	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	11319001	11/15/2011 08:00	Deborah M Zimmerman	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/21/11 at 10:24 PM

Group Number: 1276007

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11319001	Sample number(s): 6466891								
2378-TCDD	0.344 U	0.344	2.00	pg/l	111		67-158		
12378-PeCDD	0.646 J	0.330	10.0	pg/l	108		70-142		
123478-HxCDD	0.264 U	0.264	10.0	pg/l	103		70-164		
123678-HxCDD	0.344 J	0.269	10.0	pg/l	96		76-134		
123789-HxCDD	0.263 U	0.263	10.0	pg/l	104		64-162		
1234678-HpCDD	4.16 J	0.262	10.0	pg/l	100		70-140		
OCDD	5.62 J	0.255	20.0	pg/l	94		78-144		
2378-TCDF	0.239 U	0.239	2.00	pg/l	99		75-158		
12378-PeCDF	0.549 J	0.147	10.0	pg/l	108		80-134		
23478-PeCDF	0.578 J	0.138	10.0	pg/l	98		68-160		
123478-HxCDF	0.729 J	0.193	10.0	pg/l	99		72-134		
123678-HxCDF	0.608 J	0.181	10.0	pg/l	99		84-130		
123789-HxCDF	0.622 J	0.172	10.0	pg/l	98		78-130		
234678-HxCDF	0.972 J	0.167	10.0	pg/l	98		70-156		
1234678-HpCDF	3.59 J	0.143	10.0	pg/l	91		82-122		
1234789-HpCDF	0.658 J	0.175	10.0	pg/l	96		78-138		
OCDF	2.27 J	0.322	20.0	pg/l	93		63-170		

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10b Dioxin/Furan by EPA 1613B

Batch number: 11319001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6466891	46	48	39	40	43	43
Blank	75	80	68	69	72	83
OPR	68	81	68	69	69	81
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6466891	42	43	46	42	40	41
Blank	76	78	81	71	67	71
OPR	75	78	87	74	66	70

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/21/11 at 10:24 PM

Group Number: 1276007

Surrogate Quality Control

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6466891	40	43	47	55	47	
Blank	72	76	81	85	80	
OPR	69	77	86	76	79	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the MRL.

(2) The unspiked result was more than four times the spike added.

acct #13013 Cup #1276007

sample #6466891

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary										Secondary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/80208&471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrom EPA 7199	*pH EPA 8045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	TPH-GFO EPA 8015B \$	**TPH-EFH EPA 8016B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**H-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NONE	10-1 liter ambers			X	X	X					X			X	X		X				
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NONE	1-500 mL poly		X				X	X	X												
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	HNO3	1-500 mL poly	X																			
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NaOH	1-500 mL poly															X					
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NONE	1-250 mL glass												X								
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	HCL	11-40 mL vials									X									X		
		EB-SA5DS-SB-111011	11.10.11	1330	WATER	NONE	4-40 mL vials											X						X			
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory: LLI	
Received by: (Signature)		Date/Time		Airbill No.(s)																						Lancaster Laboratories, Inc.	
																										11/11/11 0900	

Suzette Lehman

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 15, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/12/2011
Group Number: 1276177
SDG: DE285
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CAClient Sample DescriptionSL-028-SA5DS-SB-1.9-2.9 Soil
SL-029-SA5DS-SB-3.5-4.5 SoilLancaster Labs (LLI) #6467994
6467995

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Mark A. Ratcliff
Senior Specialist



Analysis Report

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Page 1 of 5

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467994
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8501 SDG#: DE285-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 2 of 5

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467994
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8501 SDG#: DE285-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	1.7 J	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	2.6	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	2.3	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.2	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.8	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	2.8	0.71	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	3.4	0.35	1.8	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	Bis(2-Ethylhexyl)phthalate	117-81-7	10 J	6.4	19	1
10138	Fluoranthene	206-44-0	2.6	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 J	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	0.71 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	1.8	0.71	1.8	1
10138	Pyrene	129-00-0	2.1	0.71	1.8	1

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Perchlorate	SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg		
06557	6a Perchlorate EPA 6850	14797-73-0	4.1 J	2.3	5.4	1
The LCS recovery is outside the client requested QC window however within our in house statistical window of 70 - 130%.						

Pesticides/PCBs	SW-846	8082	ug/kg		ug/kg	ug/kg		
10225	Aroclor	5432	63496-31-1	1.1	U	1.1	3.6	1
10225	Aroclor	5442	12642-23-8	1.1	U	1.1	3.6	1
10225	Aroclor	5460	11126-42-4	1.1	U	1.1	3.6	1
10225	PCB-1016		12674-11-2	0.36	U	0.36	1.8	1
10225	PCB-1221		11104-28-2	0.36	U	0.36	1.8	1
10225	PCB-1232		11141-16-5	0.36	U	0.36	1.8	1
10225	PCB-1242		53469-21-9	0.36	U	0.36	1.8	1
10225	PCB-1248		12672-29-6	0.36	U	0.36	1.8	1
10225	PCB-1254		11097-69-1	4.9		0.36	1.8	1
10225	PCB-1260		11096-82-5	0.95	J	0.42	1.8	

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 3 of 5

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467994
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8501 SDG#: DE285-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	PCB-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	18,600	6.28	20.8	1
07914	Boron	7440-42-8	4.58 J	0.374	5.19	1
01650	Calcium	7440-70-2	4,660	2.60	20.8	1
01654	Iron	7439-89-6	28,500	5.42	41.5	2
01656	Lithium	7439-93-2	33.6	0.64	2.1	1
01657	Magnesium	7439-95-4	7,990	0.457	10.4	1
06958	Manganese	7439-96-5	313	0.0374	0.519	1
10145	Phosphorus	7723-14-0	555	0.363	10.4	1
01662	Potassium	7440-09-7	2,910	11.7	51.9	1
01667	Sodium	7440-23-5	163	6.18	104	1
07968	Strontium	7440-24-6	17.7	0.0260	0.519	1
06969	Tin	7440-31-5	22.0	0.332	10.4	1
06970	Titanium	7440-32-6	1,040	0.0737	1.04	1
10146	Zirconium	7440-67-7	7.45	0.478	5.19	1
		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0776 U	0.0776	0.210	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.26	0.0839	0.419	2
06126	Barium	7440-39-3	57.5	0.111	0.419	2
06127	Beryllium	7440-41-7	0.539	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.0832 J	0.0461	0.105	2
06131	Chromium	7440-47-3	32.4	0.126	0.419	2
06132	Cobalt	7440-48-4	11.2	0.0210	0.105	2
06133	Copper	7440-50-8	10.4	0.0839	0.419	2
06135	Lead	7439-92-1	8.11	0.0107	0.210	2
06138	Molybdenum	7439-98-7	0.264	0.0524	0.105	2
06139	Nickel	7440-02-0	15.0	0.105	0.419	2
06141	Selenium	7782-49-2	0.202 J	0.0608	0.419	2
06142	Silver	7440-22-4	0.0149 U	0.0149	0.105	2
06145	Thallium	7440-28-0	0.276	0.0315	0.105	2
06148	Vanadium	7440-62-2	57.5	0.0231	0.105	2
06149	Zinc	7440-66-6	62.0	0.587	3.15	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.107	1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.5	0.87	1.1	1
		EPA 314.0	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467994
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8501 SDG#: DE285-01

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	mg/kg	mg/kg	mg/kg	1
			0.22 U	0.22	1.1	
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	5.90	0.0100	0.0100	1
Wet Chemistry						
11624	Moisture Content by 160.3	n.a.	%	%	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 01:44	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 00:40	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	113190023A	12/05/2011 14:54	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/29/2011 23:44	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	113190023A	11/16/2011 08:55	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113245708004	11/26/2011 09:42	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467994
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8501 SDG#: DE285-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 05:47	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:22	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:29	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 19:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/18/2011 02:01	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11322243201A	11/19/2011 13:10	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1



Analysis Report

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Page 1 of 5

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467995
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8502 SDG#: DE285-02*

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	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467995
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8502 SDG#: DE285-02*

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	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	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	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.5 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	9.8	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC

*=This limit was used in the evaluation of the final result

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467995
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8502 SDG#: DE285-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	26,800	6.34	21.0	1
07914	Boron	7440-42-8	6.61	0.377	5.24	1
01650	Calcium	7440-70-2	6,840	2.62	21.0	1
01654	Iron	7439-89-6	36,000	5.47	41.9	2
01656	Lithium	7439-93-2	47.1	0.65	2.1	1
01657	Magnesium	7439-95-4	10,400	0.461	10.5	1
06958	Manganese	7439-96-5	293	0.0377	0.524	1
10145	Phosphorus	7723-14-0	552	0.367	10.5	1
01662	Potassium	7440-09-7	5,010	11.8	52.4	1
01667	Sodium	7440-23-5	150	6.24	105	1
07968	Strontium	7440-24-6	28.9	0.0262	0.524	1
06969	Tin	7440-31-5	3.57 J	0.336	10.5	1
06970	Titanium	7440-32-6	1,340	0.0744	1.05	1
10146	Zirconium	7440-67-7	8.40	0.482	5.24	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0902 J	0.0799	0.216	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.67	0.0864	0.432	2
06126	Barium	7440-39-3	98.2	0.114	0.432	2
06127	Beryllium	7440-41-7	0.719	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.143	0.0475	0.108	2
06131	Chromium	7440-47-3	31.3	0.130	0.432	2
06132	Cobalt	7440-48-4	8.82	0.0216	0.108	2
06133	Copper	7440-50-8	16.3	0.0864	0.432	2
06135	Lead	7439-92-1	9.21	0.0110	0.216	2
06138	Molybdenum	7439-98-7	0.200	0.0540	0.108	2
06139	Nickel	7440-02-0	21.4	0.108	0.432	2
06141	Selenium	7782-49-2	0.215 J	0.0626	0.432	2
06142	Silver	7440-22-4	0.0265 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.381	0.0324	0.108	2
06148	Vanadium	7440-62-2	59.8	0.0238	0.108	2
06149	Zinc	7440-66-6	80.5	0.605	3.24	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.3	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	32.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467995
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8502 SDG#: DE285-02*

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	0.28 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.84	0.0100	0.0100	1
Wet Chemistry						
11624	Moisture Content by 160.3	n.a.	8.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 02:08	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 01:15	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 00:03	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113245708004	11/26/2011 10:03	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 09:59	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:09	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 5 of 5

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467995
LLI Group # 1276177
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 12/15/2011 09:06

Suite 210

Chantilly VA 20151

E8502 SDG#: DE285-02*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:30	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:30	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:24	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:30	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:30	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11318621202A	11/14/2011 19:34	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11318621203A	11/18/2011 02:25	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11322243201A	11/19/2011 13:37	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11318621202A	11/14/2011 07:10	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11318621203A	11/14/2011 07:15	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11319039401B	11/15/2011 09:45	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11322243201A	11/18/2011 08:40	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/15/11 at 09:06 AM

Group Number: 1276177

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11320SLJ026	Sample number(s): 6467994-6467995								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	91		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	90		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	92		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	96		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	111		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	106		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	97		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	93		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	103		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	98		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	104		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	112		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	103		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	100		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	100		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	97		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	105		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	89		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	71		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	96		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	93		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	90		72-119		
Batch number: 11320SLK026	Sample number(s): 6467994-6467995								
Aniline	170 U	170.	500	ug/kg	72		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	43		15-121		
Benzoic acid	170 U	170.	500	ug/kg	94		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	90		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	96		73-114		
Carbazole	17 U	17.	170	ug/kg	93		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	51		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	92		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	88		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	86		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	73		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	95		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	94		74-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/15/11 at 09:06 AM

Group Number: 1276177

<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>
Dibenzofuran	17	U	17.	170	ug/kg	92		74-116		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	87		74-99		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	86		70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	84		74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	48		10-116		
	U									
2,4-Dichlorophenol	17	U	17.	170	ug/kg	96		75-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	99		72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	101		83-120		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	91		46-120		
	U									
2,4-Dinitrophenol	330		330.	1,000	ug/kg	85		18-133		
	U									
2,4-Dinitrotoluene	33	U	33.	170	ug/kg	94		73-115		
2,6-Dinitrotoluene	17	U	17.	170	ug/kg	97		79-115		
1,2-Diphenylhydrazine	17	U	17.	170	ug/kg	103		71-125		
Hexachlorobenzene	17	U	17.	170	ug/kg	95		73-119		
Hexachlorobutadiene	67	U	67.	170	ug/kg	90		65-117		
Hexachlorocyclopentadiene	170		170.	500	ug/kg	104		46-115		
	U									
Hexachloroethane	17	U	17.	170	ug/kg	88		61-109		
Isophorone	17	U	17.	170	ug/kg	93		69-110		
2-Methylphenol	33	U	33.	170	ug/kg	98		66-110		
4-Methylphenol	33	U	33.	170	ug/kg	86		66-117		
2-Nitroaniline	17	U	17.	170	ug/kg	92		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	87		62-109		
4-Nitroaniline	67	U	67.	170	ug/kg	66		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	90		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	90		76-111		
4-Nitrophenol	170		170.	500	ug/kg	81		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	84		63-107		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	99		67-141		
Pentachlorophenol	170		170.	500	ug/kg	81		51-117		
	U									
Phenol	17	U	17.	170	ug/kg	88		58-112		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	88		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	90		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	93		78-111		
Batch number: 113190023A	Sample number(s): 6467994									
6a Perchlorate EPA 6850	2.1	U	2.1	5.0	ug/kg	116*		85-115		
Batch number: 113230004A	Sample number(s): 6467994-6467995									
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	244*	74	36-106	107*	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	78		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	98		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					

Batch number: 113241026002A

Sample number(s): 6467994-6467995

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/15/11 at 09:06 AM

Group Number: 1276177

<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>
Antimony	0.0718 U	0.0718	0.194	mg/kg	70		40-227		
Arsenic	0.0777 U	0.0777	0.388	mg/kg	96		83-111		
Beryllium	0.0155 U	0.0155	0.0971	mg/kg	97		84-112		
Cadmium	0.0427 U	0.0427	0.0971	mg/kg	99		83-111		
Chromium	0.117 U	0.117	0.388	mg/kg	104		77-123		
Cobalt	0.0194 U	0.0194	0.0971	mg/kg	99		85-114		
Copper	0.0777 U	0.0777	0.388	mg/kg	99		81-110		
Lead	0.0099 U	0.0099	0.194	mg/kg	99		84-112		
Nickel	0.0971 U	0.0971	0.388	mg/kg	102		81-110		
Silver	0.0138 U	0.0138	0.0971	mg/kg	101		83-112		
Thallium	0.0291 U	0.0291	0.0971	mg/kg	99		82-112		
Vanadium	0.0214 U	0.0214	0.0971	mg/kg	99		76-110		
Zinc	0.689 J	0.544	2.91	mg/kg	99		82-110		
Batch number: 113241026002B	Sample number(s): 6467994-6467995								
Selenium	0.0563 U	0.0563	0.388	mg/kg	99		79-110		
Batch number: 113241026002C	Sample number(s): 6467994-6467995								
Molybdenum	0.0485 U	0.0485	0.0971	mg/kg	96		80-110		
Batch number: 113241026002D	Sample number(s): 6467994-6467995								
Barium	0.103 U	0.103	0.388	mg/kg	98		83-110		
Batch number: 113245708004	Sample number(s): 6467994-6467995								
Aluminum	5.93 U	5.93	19.6	mg/kg	79		40-127		
Boron	0.353 U	0.353	4.90	mg/kg	97		83-110		
Calcium	6.46 J	2.45	19.6	mg/kg	100		81-110		
Iron	3.25 J	2.56	19.6	mg/kg	84		47-129		
Lithium	0.61 U	0.61	2.0	mg/kg	101		80-120		
Magnesium	2.95 J	0.431	9.80	mg/kg	85		63-116		
Manganese	0.0588 J	0.0353	0.490	mg/kg	97		85-116		
Phosphorus	1.31 J	0.343	9.80	mg/kg	102		80-120		
Potassium	11.1 U	11.1	49.0	mg/kg	96		71-110		
Sodium	5.83 U	5.83	98.0	mg/kg	96		76-110		
Strontium	0.0245 U	0.0245	0.490	mg/kg	98		84-110		
Tin	1.21 J	0.314	9.80	mg/kg	98		86-120		
Titanium	0.0696 U	0.0696	0.980	mg/kg	82		80-120		
Zirconium	0.451 U	0.451	4.90	mg/kg	103		80-120		
Batch number: 113245711003	Sample number(s): 6467994-6467995								
Mercury	0.0068 U	0.0068	0.0972	mg/kg	92		83-119		
Batch number: 11318621202A	Sample number(s): 6467994-6467995								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	98		90-110		
Batch number: 11318621203A	Sample number(s): 6467994-6467995								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	108		85-115		
Batch number: 11322243201A	Sample number(s): 6467994-6467995								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	85		80-120		
Batch number: 11319039401B	Sample number(s): 6467994-6467995								
17a pH by 9045C					100		95-105		
Batch number: 11325162402A	Sample number(s): 6467994-6467995								
Moisture Content by 160.3					100		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/15/11 at 09:06 AM

Group Number: 1276177

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11320SLJ026 Sample number(s): 6467994-6467995 UNSPK: P465418									
Acenaphthene	89	92	63-105	3	30				
Acenaphthylene	89	93	67-114	4	30				
Anthracene	94	94	73-115	1	30				
Benzo(a)anthracene	99	97	59-128	2	30				
Benzo(a)pyrene	77	97	58-142	23	30				
Benzo(b)fluoranthene	78	103	54-163	28	30				
Benzo(g,h,i)perylene	61	88	33-141	35*	30				
Benzo(k)fluoranthene	81	90	57-153	10	30				
Butylbenzylphthalate	129	111	57-173	14	30				
Di-n-butylphthalate	146	121	65-148	19	30				
Chrysene	95	92	67-123	2	30				
Dibenz(a,h)anthracene	73	96	22-133	27	30				
Diethylphthalate	128	120	70-136	6	30				
Dimethylphthalate	106	110	74-118	4	30				
Bis(2-Ethylhexyl)phthalate	151	136	39-167	11	30				
Fluoranthene	112	101	51-149	9	30				
Fluorene	97	98	66-122	2	30				
Indeno(1,2,3-cd)pyrene	70	94	21-143	30	30				
1-Methylnaphthalene	86	85	72-123	2	30				
2-Methylnaphthalene	86	85	64-103	1	30				
Naphthalene	91	88	61-102	3	30				
N-Nitrosodimethylamine	102	86	48-113	18	30				
Di-n-octylphthalate	94	138	40-192	37*	30				
Phenanthrene	95	92	62-122	4	30				
Pyrene	89	85	51-131	4	30				
Batch number: 11320SLK026 Sample number(s): 6467994-6467995 UNSPK: P465418									
Aniline	78	62	18-116	22	30				
Benidine	0*	18*	35-141	200*	30				
Benzoic acid	102	84	10-173	20	30				
Benzyl alcohol	96	83	67-115	14	30				
4-Bromophenyl-phenylether	107	89	67-129	18	30				
Carbazole	98	83	64-120	16	30				
4-Chloro-3-methylphenol	102	88	62-122	15	30				
4-Chloroaniline	55	48	13-107	12	30				
bis(2-Chloroethoxy)methane	98	83	75-104	16	30				
bis(2-Chloroethyl)ether	95	80	60-116	17	30				
bis(2-Chloroisopropyl)ether	93	78	55-142	18	30				
2-Chloronaphthalene	79	67	50-141	16	30				
2-Chlorophenol	101	86	73-121	16	30				
4-Chlorophenyl-phenylether	98	86	80-109	13	30				
Dibenzofuran	98	85	71-112	15	30				
1,2-Dichlorobenzene	94	80	66-108	16	30				
1,3-Dichlorobenzene	92	78	63-109	16	30				
1,4-Dichlorobenzene	90	77	58-108	16	30				
3,3'-Dichlorobenzidine	61	49	28-109	22	30				
2,4-Dichlorophenol	103	89	66-123	14	30				
2,4-Dimethylphenol	105	89	68-118	17	30				
3,5-Dimethylphenol	103	88	71-127	16	30				

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/15/11 at 09:06 AM

Group Number: 1276177

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	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
4,6-Dinitro-2-methylphenol	97	82	11-126	16	30				
2,4-Dinitrophenol	80	73	20-143	10	30				
2,4-Dinitrotoluene	99	87	56-129	13	30				
2,6-Dinitrotoluene	103	89	69-123	14	30				
1,2-Diphenylhydrazine	113	95	71-129	18	30				
Hexachlorobenzene	107	87	77-114	20	30				
Hexachlorobutadiene	97	83	62-120	16	30				
Hexachlorocyclopentadiene	131	92	10-153	35*	30				
Hexachloroethane	93	76	57-109	19	30				
Isophorone	98	83	73-102	16	30				
2-Methylphenol	105	89	75-111	17	30				
4-Methylphenol	94	79	59-123	17	30				
2-Nitroaniline	99	86	67-125	14	30				
3-Nitroaniline	88	80	59-122	10	30				
4-Nitroaniline	79	63	41-109	23	30				
Nitrobenzene	95	81	57-125	16	30				
2-Nitrophenol	98	84	56-127	15	30				
4-Nitrophenol	89	76	37-129	17	30				
N-Nitroso-di-n-propylamine	90	75	60-116	18	30				
N-Nitrosodiphenylamine	110	90	71-122	20	30				
Pentachlorophenol	73	76	28-127	4	30				
Phenol	94	79	58-126	17	30				
1,2,4-Trichlorobenzene	96	79	72-115	19	30				
2,4,5-Trichlorophenol	100	86	58-129	15	30				
2,4,6-Trichlorophenol	103	90	56-134	14	30				
Batch number: 113190023A	Sample number(s): 6467994 UNSPK: 6467994								
6a Perchlorate EPA 6850	104	108	80-120	4	20				
Batch number: 113230004A	Sample number(s): 6467994-6467995 UNSPK: P470165								
PCB-1016	86	91	29-146	5	50				
PCB-1260	99	109	39-149	9	50				
Batch number: 113241026002A	Sample number(s): 6467994-6467995 UNSPK: P475866 BKG: P475866								
Antimony	17*	24*	75-125	21*	20	0.170 J	0.251	38* (1)	20
Arsenic	120 (2)	315 (2)	75-125	27*	20	9.95	19.1	63*	20
Beryllium	99	141*	75-125	18	20	0.842	1.20	35*	20
Cadmium	113	133*	75-125	13	20	0.170	0.166	3 (1)	20
Chromium	133*	213*	75-125	18	20	26.3	47.5	57*	20
Cobalt	116	148*	75-125	20	20	11.1	22.0	66*	20
Copper	123	235*	75-125	22*	20	32.1	66.3	70*	20
Lead	132 (2)	322 (2)	75-125	26*	20	14.6	27.7	62*	20
Nickel	133*	227*	75-125	23*	20	21.7	44.2	68*	20
Silver	107	124	75-125	14	20	0.0245 J	0.0472 J	64* (1)	20
Thallium	114	149*	75-125	15	20	0.390	0.646	50* (1)	20
Vanadium	162 (2)	300 (2)	75-125	17	20	55.1	97.3	55*	20
Zinc	146 (2)	375 (2)	75-125	23*	20	72.3	144	66*	20
Batch number: 113241026002B	Sample number(s): 6467994-6467995 UNSPK: P475866 BKG: P475866								
Selenium	81	80	75-125	1	20	0.442	0.300 J	38* (1)	20
Batch number: 113241026002C	Sample number(s): 6467994-6467995 UNSPK: P475866 BKG: P475866								
Molybdenum	98	117	75-125	16	20	0.518	0.434	18 (1)	20

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

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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: 12/15/11 at 09:06 AM

Group Number: 1276177

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: 113241026002D Barium	Sample number(s): 6467994-6467995 UNSPK: P475866 BKG: P475866 146 (2) 388 (2) 75-125 21* 20 87.5 171 65*								20
Batch number: 113245708004 Aluminum	Sample number(s): 6467994-6467995 UNSPK: 6467994 BKG: 6467994 1838 1801 75-125 0 20 17,200 16,900 2	(2) (2)							20
Boron	97 97 84-115 3 20 4.24 J 4.57 J 8 (1)								20
Calcium	166 (2) 180 (2) 75-125 2 20 4,310 4,290 0								20
Iron	1639 569 (2) 75-125 4 20 26,400 24,000 9	(2)							20
Lithium	99 98 82-114 2 20 31.1 29.0 7								20
Magnesium	376 (2) 385 (2) 75-125 1 20 7,400 6,950 6								20
Manganese	-1 (2) 137 (2) 75-125 21* 20 289 278 4								20
Phosphorus	115 (2) 111 (2) 75-125 0 20 514 491 5								20
Potassium	158* 155* 75-125 0 20 2,690 2,670 1								20
Sodium	98 99 75-125 3 20 151 198 27* (1)								20
Strontium	99 99 75-115 3 20 16.4 18.6 12								20
Tin	85 86 80-110 4 20 20.4 2.70 J 153* (1)								20
Titanium	430 (2) 424 (2) 75-125 1 20 967 999 3								20
Zirconium	99 99 81-110 3 20 6.90 7.27 5 (1)								20
Batch number: 113245711003 Mercury	Sample number(s): 6467994-6467995 UNSPK: P477490 BKG: P477490 97 99 65-135 4 20 0.0066 U 0.0070 U 0 (1)								20
Batch number: 11318621202A 11a Anions by 300.0 - Fluoride	Sample number(s): 6467994-6467995 UNSPK: P465418 BKG: P465418 72* 80-120 0.80 U 0.93 J 200* (1)								20
Batch number: 11318621203A 7a Perchlorate EPA 314.0	Sample number(s): 6467994-6467995 UNSPK: P465418 BKG: P465418 115 80-120 9.0 U 9.0 U 0 (1)								15
Batch number: 11322243201A 3a Cr VI by EPA 7199	Sample number(s): 6467994-6467995 UNSPK: P465418 BKG: P465418 95 75-125 0.20 U 0.69 J 200* (1)								20
Batch number: 11319039401B 17a pH by 9045C	Sample number(s): 6467994-6467995 BKG: P465418 6.27 6.21 1								3
Batch number: 11325162402A Moisture Content by 160.3	Sample number(s): 6467994-6467995 BKG: P465418 10.3 10.3 1								20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11320SLJ026

Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6467994 133*	92	100

*- 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: 12/15/11 at 09:06 AM

Group Number: 1276177

Surrogate Quality Control

6467995	129	90	86
Blank	113	86	92
LCS	119	88	90
MS	126	84	80
MSD	123	86	84

Limits:	40-130	45-130	45-135

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11320SLK026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6467994	95	95	90	83	90	86
6467995	92	94	99	89	93	92
Blank	88	93	92	86	91	89
LCS	93	95	95	87	91	83
MS	99	101	100	93	98	91
MSD	87	89	92	81	88	80

Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113230004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6467994	97	49
6467995	181*	186*
Blank	95	123*
LCS	95	116
LCSD	106	126*
MS	97	104
MSD	98	112

Limits:	53-139	45-120

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

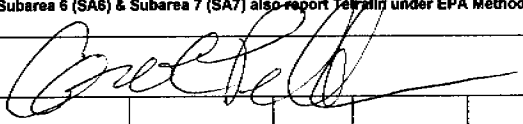
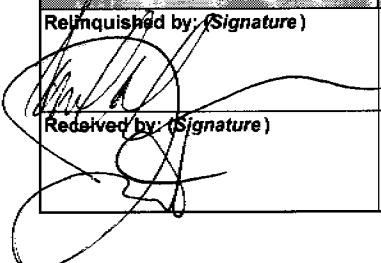
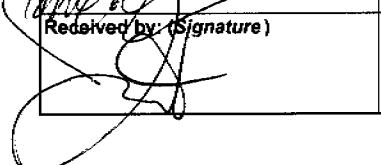
(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

acct#13013 Cp#1276177

Sample# 6467994-95

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetra in under EPA Method 8270C.						*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)				
Samplers Signatures: 																		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-028-SA5DS-1.9-2.9	11.11.11	1145	SOIL	NONE	1-SS Sleeve			X	X									
SL-028-SA5DS-1.9-2.9	11.11.11	1145	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X	X				
SL-029-SA5DS-3.5-4.5	11.11.11	0915	SOIL	NONE	1-SS Sleeve			X	X									
SL-029-SA5DS-3.5-4.5	11.11.11	0915	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X					
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:				
		11/11/2011 / 1630												Lancaster Laboratories, Inc.				
Redelivered by: (Signature)		Date/Time		Airbill No.(s)														
		11/21/09 30		8767 9857 4949														

-SB- was added to the IDs per PH. NM 11/14/11

Nicole Maljovec

From: Hartman, Pamela [HartmanPM@cdm.com]
Sent: Monday, November 14, 2011 3:55 PM
To: Nicole Maljovec
Subject: RE: SSFL COC 11/11/11- "SB" is missing

Yes, SB is correct! Thanks!!!

From: Nicole Maljovec [nmaljovec@lancasterlabs.com]
Sent: Monday, November 14, 2011 12:17 PM
To: Hartman, Pamela
Subject: FW: SSFL COC 11/11/11- "SB" is missing

Hi Pam,
The "-SB-" is missing from these samples. I went ahead and added them to the entry. Do you mind if I update the COC instead of you correcting one, assuming the SB is right?

Thanks,
Nicole

-----Original Message-----

From: Hartman, Pamela [mailto:HartmanPM@cdm.com]
Sent: Friday, November 11, 2011 5:12 PM
To: Bloisa, Peggy; Burgesser, Todd; 'Laura Rainey'; Nicole Maljovec; SA Env Entry; TWallbom@dtsc.ca.gov; Zakowski, Cherie
Subject: SSFL COC 11/11/11

Subsurface sampling continued in SA5DS with one hand auger crew today.
Please see attached COC.

Thanks and have a great weekend !

Pam

CONFIDENTIAL MATERIAL: This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If received in error, please notify sender by return e-mail and destroy all copies of the original transmission and any attachments. Thank you.

If you wish to view information about Lancaster Laboratories, Inc., please visit our website at www.lancasterlabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 30, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/12/2011
Group Number: 1276178
SDG: DX155
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CAClient Sample DescriptionSL-028-SA5DS-SB-1.9-2.9 Soil
SL-029-SA5DS-SB-3.5-4.5 SoilLancaster Labs (LLI) #6467996
6467997

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467996
LLI Group # 1276178
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 11/30/2011 11:14

Suite 210

Chantilly VA 20151

X5501 SDG#: DX155-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	7.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467996
LLI Group # 1276178
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 11/30/2011 11:14

Suite 210

Chantilly VA 20151

X5501 SDG#: DX155-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0568 U	0.0568	1.08	1
11031	12378-PeCDD	40321-76-4	0.176 JQ	0.0378	5.40	1
11031	123478-HxCDD	39227-28-6	0.0798 JBQ	0.0295	5.40	1
11031	123678-HxCDD	57653-85-7	0.122 JBQ	0.0298	5.40	1
11031	123789-HxCDD	19408-74-3	0.138 JBQ	0.0294	5.40	1
11031	1234678-HpCDD	35822-46-9	0.955 JB	0.0359	5.40	1
11031	OCDD	3268-87-9	5.55 JB	0.0276	10.8	1
11031	2378-TCDF	51207-31-9	0.242 J	0.0688	1.08	1
11031	12378-PeCDF	57117-41-6	0.262 JB	0.0343	5.40	1
11031	23478-PeCDF	57117-31-4	0.160 JB	0.0320	5.40	1
11031	123478-HxCDF	70648-26-9	0.145 JBQ	0.0234	5.40	1
11031	123678-HxCDF	57117-44-9	0.116 JB	0.0222	5.40	1
11031	123789-HxCDF	72918-21-9	0.0553 JBQ	0.0237	5.40	1
11031	234678-HxCDF	60851-34-5	0.127 JBQ	0.0207	5.40	1
11031	1234678-HpCDF	67562-39-4	0.316 JB	0.0136	5.40	1
11031	1234789-HpCDF	55673-89-7	0.0568 JBQ	0.0159	5.40	1
11031	OCDF	39001-02-0	0.383 JB	0.0338	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	86	26 - 138
13C12-OCDF	89	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467996
LLI Group # 1276178
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 11/30/2011 11:14

Suite 210

Chantilly VA 20151

X5501 SDG#: DX155-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-028-SA5DS-SB-1.9-2.9 Soil
SSFL Area IV Collocated Soil Sampling
SL-028-SA5DS-SB

LLI Sample # SW 6467996
LLI Group # 1276178
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 11:45

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 11/30/2011 11:14

Suite 210

Chantilly VA 20151

X5501 SDG#: DX155-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 15:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467997
LLI Group # 1276178
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 11/30/2011 11:14

Suite 210

Chantilly VA 20151

X5502 SDG#: DX155-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	8.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467997
LLI Group # 1276178
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 11/30/2011 11:14

Suite 210

Chantilly VA 20151

X5502 SDG#: DX155-02

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	0.0474 U	0.0474	1.09	1
11031	12378-PeCDD	40321-76-4	0.0362 U	0.0362	5.44	1
11031	123478-HxCDD	39227-28-6	0.0278 JBQ	0.0218	5.44	1
11031	123678-HxCDD	57653-85-7	0.0510 JBQ	0.0230	5.44	1
11031	123789-HxCDD	19408-74-3	0.0529 JBQ	0.0219	5.44	1
11031	1234678-HpCDD	35822-46-9	0.402 JB	0.0276	5.44	1
11031	OCDD	3268-87-9	1.69 JB	0.0224	10.9	1
11031	2378-TCDF	51207-31-9	0.0398 U	0.0398	1.09	1
11031	12378-PeCDF	57117-41-6	0.0593 JBQ	0.0205	5.44	1
11031	23478-PeCDF	57117-31-4	0.0955 JB	0.0201	5.44	1
11031	123478-HxCDF	70648-26-9	0.0588 JBQ	0.0174	5.44	1
11031	123678-HxCDF	57117-44-9	0.0267 JBQ	0.0156	5.44	1
11031	123789-HxCDF	72918-21-9	0.0364 JBQ	0.0196	5.44	1
11031	234678-HxCDF	60851-34-5	0.0423 JBQ	0.0141	5.44	1
11031	1234678-HpCDF	67562-39-4	0.108 JBQ	0.0118	5.44	1
11031	1234789-HpCDF	55673-89-7	0.0224 JB	0.0178	5.44	1
11031	OCDF	39001-02-0	0.158 JBQ	0.0313	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	94	32 - 141
13C12-123678-HxCDD	93	28 - 130
13C12-123789-HxCDD	89	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	99	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	85	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467997
LLI Group # 1276178
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/12/2011 09:30

Suite 210

Reported: 11/30/2011 11:14

Chantilly VA 20151

X5502 SDG#: DX155-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

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Page 4 of 4

Sample Description: SL-029-SA5DS-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-029-SA5DS-SB

LLI Sample # SW 6467997
LLI Group # 1276178
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/12/2011 09:30

14420 Albemarle Point Place

Reported: 11/30/2011 11:14

Suite 210

Chantilly VA 20151

X5502 SDG#: DX155-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 16:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402A	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/30/11 at 11:14 AM

Group Number: 1276178

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11325162402A Moisture Content by 160.3	Sample number(s): 6467996-6467997				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326002	Sample number(s): 6467996-6467997								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11325162402A Moisture Content by 160.3	Sample number(s): 6467996-6467997					BKG: P465418 10.3	10.3	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/30/11 at 11:14 AM

Group Number: 1276178

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6467996	75	85	71	76	80	84
6467997	73	80	71	81	87	75
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6467996	86	86	89	84	82	84
6467997	95	79	85	83	94	93
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6467996	81	90	97	79	87	
6467997	89	94	99	74	86	
Blank	97	105	114	86	102	
OPR	82	90	96	67	82	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct#13013 Cp#1276178

Sample# 6467996-97

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary												
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																			Other Instructions and Notes
Samplers Signatures:							*Metals EPA 6010/6020B&7471A												
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-028-SA5DS-1.9-2.9	11.11.11	1145	SOIL	NONE	1-SS Sleeve														
SL-028-SA5DS-1.9-2.9	11.11.11	1145	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X	X			
SL-029-SA5DS-3.5-4.5	11.11.11	0915	SOIL	NONE	1-SS Sleeve					X	X								
SL-029-SA5DS-3.5-4.5	11.11.11	0915	SOIL	NONE	1-16 oz Jar	X	X					X	X	X	X	X			
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)										Laboratory:						
	11/11/2011 / 1630												Lancaster Laboratories, Inc.						
Received by: (Signature)	Date/Time		Airbill No.(s)																
	11/11/2011 0930		8767 9857 4949																

-SB- was added to the IDs per PH. NLM 11/14/11

Nicole Maljovec

From: Hartman, Pamela [HartmanPM@cdm.com]
Sent: Monday, November 14, 2011 3:55 PM
To: Nicole Maljovec
Subject: RE: SSFL COC 11/11/11- "SB" is missing

Yes, SB is correct! Thanks!!!

From: Nicole Maljovec [nmaljovec@lancasterlabs.com]
Sent: Monday, November 14, 2011 12:17 PM
To: Hartman, Pamela
Subject: FW: SSFL COC 11/11/11- "SB" is missing

Hi Pam,
The "-SB-" is missing from these samples. I went ahead and added them to the entry. Do you mind if I update the COC instead of you correcting one, assuming the SB is right?

Thanks,
Nicole

-----Original Message-----

From: Hartman, Pamela [mailto:HartmanPM@cdm.com]
Sent: Friday, November 11, 2011 5:12 PM
To: Bloisa, Peggy; Burgesser, Todd; 'Laura Rainey'; Nicole Maljovec; SA Env Entry; TWallbom@dtsc.ca.gov; Zakowski, Cherie
Subject: SSFL COC 11/11/11

Subsurface sampling continued in SA5DS with one hand auger crew today.
Please see attached COC.

Thanks and have a great weekend !

Pam

CONFIDENTIAL MATERIAL: This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If received in error, please notify sender by return e-mail and destroy all copies of the original transmission and any attachments. Thank you.

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 30, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/15/2011
Group Number: 1276469
SDG: DX155
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CAClient Sample DescriptionSL-002-SA5DS-SB-1.8-2.8 Soil
SL-031-SA5DS-SB-4.0-5.0 Soil
SL-031-SA5DS-SB-9.0-10.0 Soil
SL-013-SA8S-SB-4.0-5.0 SoilLancaster Labs (LLI) #6470172
6470173
6470174
6470175

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

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Page 1 of 4

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0477 JQ	0.0424	1.04	1
11031	12378-PeCDD	40321-76-4	0.0570 J	0.0355	5.21	1
11031	123478-HxCDD	39227-28-6	0.0257 JBQ	0.0231	5.21	1
11031	123678-HxCDD	57653-85-7	0.204 JBQ	0.0241	5.21	1
11031	123789-HxCDD	19408-74-3	0.410 JB	0.0241	5.21	1
11031	1234678-HpCDD	35822-46-9	0.901 JB	0.0237	5.21	1
11031	OCDD	3268-87-9	4.74 JB	0.0219	10.4	1
11031	2378-TCDF	51207-31-9	0.0565 J	0.0426	1.04	1
11031	12378-PeCDF	57117-41-6	0.0775 JB	0.0198	5.21	1
11031	23478-PeCDF	57117-31-4	0.0966 JBQ	0.0197	5.21	1
11031	123478-HxCDF	70648-26-9	0.0173 U	0.0173	5.21	1
11031	123678-HxCDF	57117-44-9	0.0626 JB	0.0147	5.21	1
11031	123789-HxCDF	72918-21-9	0.354 JB	0.0188	5.21	1
11031	234678-HxCDF	60851-34-5	0.0647 JBQ	0.0141	5.21	1
11031	1234678-HpCDF	67562-39-4	0.164 JBQ	0.0101	5.21	1
11031	1234789-HpCDF	55673-89-7	0.0264 JBQ	0.0143	5.21	1
11031	OCDF	39001-02-0	0.323 JB	0.0266	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

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Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0021 SDG#: DX155-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 17:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0469 U	0.0469	1.07	1
11031	12378-PeCDD	40321-76-4	0.101 JQ	0.0339	5.36	1
11031	123478-HxCDD	39227-28-6	0.0269 U	0.0269	5.36	1
11031	123678-HxCDD	57653-85-7	0.250 JBQ	0.0280	5.36	1
11031	123789-HxCDD	19408-74-3	0.174 JBQ	0.0279	5.36	1
11031	1234678-HpCDD	35822-46-9	0.865 JB	0.0281	5.36	1
11031	OCDD	3268-87-9	2.31 JB	0.0202	10.7	1
11031	2378-TCDF	51207-31-9	0.0333 U	0.0333	1.07	1
11031	12378-PeCDF	57117-41-6	0.0297 JBQ	0.0172	5.36	1
11031	23478-PeCDF	57117-31-4	0.0469 JBQ	0.0165	5.36	1
11031	123478-HxCDF	70648-26-9	0.0385 JBQ	0.0155	5.36	1
11031	123678-HxCDF	57117-44-9	0.0170 JBQ	0.0136	5.36	1
11031	123789-HxCDF	72918-21-9	0.0673 JBQ	0.0165	5.36	1
11031	234678-HxCDF	60851-34-5	0.0427 JBQ	0.0128	5.36	1
11031	1234678-HpCDF	67562-39-4	0.129 JB	0.0107	5.36	1
11031	1234789-HpCDF	55673-89-7	0.0387 JBQ	0.0164	5.36	1
11031	OCDF	39001-02-0	0.179 JB	0.0281	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0314 SDG#: DX155-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 18:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/15/2011 09:15

Suite 210

Reported: 11/30/2011 12:50

Chantilly VA 20151

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	10.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0449 U	0.0449	1.11	1
11031	12378-PeCDD	40321-76-4	0.0348 U	0.0348	5.57	1
11031	123478-HxCDD	39227-28-6	0.0458 JB	0.0257	5.57	1
11031	123678-HxCDD	57653-85-7	0.0913 JBQ	0.0262	5.57	1
11031	123789-HxCDD	19408-74-3	0.0672 JB	0.0262	5.57	1
11031	1234678-HpCDD	35822-46-9	0.450 JBQ	0.0249	5.57	1
11031	OCDD	3268-87-9	2.45 JB	0.0235	11.1	1
11031	2378-TCDF	51207-31-9	0.0330 U	0.0330	1.11	1
11031	12378-PeCDF	57117-41-6	0.0519 JB	0.0170	5.57	1
11031	23478-PeCDF	57117-31-4	0.0422 JB	0.0164	5.57	1
11031	123478-HxCDF	70648-26-9	0.0401 JBQ	0.0143	5.57	1
11031	123678-HxCDF	57117-44-9	0.0350 JBQ	0.0127	5.57	1
11031	123789-HxCDF	72918-21-9	0.0350 JBQ	0.0148	5.57	1
11031	234678-HxCDF	60851-34-5	0.0548 JB	0.0117	5.57	1
11031	1234678-HpCDF	67562-39-4	0.113 JBQ	0.0115	5.57	1
11031	1234789-HpCDF	55673-89-7	0.0445 JBQ	0.0173	5.57	1
11031	OCDF	39001-02-0	0.229 JB	0.0324	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

E Exceeds calibration range

C Confirmed quantitation on secondary GC column

Q EMPC - Estimated Maximum Possible Concentration

F Interference is present



Analysis Report

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Page 3 of 4

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/15/2011 09:15

Suite 210

Reported: 11/30/2011 12:50

Chantilly VA 20151

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 4 of 4

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0319 SDG#: DX155-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 19:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

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Page 1 of 4

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/15/2011 09:15

Suite 210

Reported: 11/30/2011 12:50

Chantilly VA 20151

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
EPA 160.3 modified						
11625	Moisture Content by 160.3	n.a.	7.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0444 U	0.0444	1.07	1
11031	12378-PeCDD	40321-76-4	0.0309 U	0.0309	5.35	1
11031	123478-HxCDD	39227-28-6	0.0213 U	0.0213	5.35	1
11031	123678-HxCDD	57653-85-7	0.0431 JBQ	0.0215	5.35	1
11031	123789-HxCDD	19408-74-3	0.0383 JB	0.0211	5.35	1
11031	1234678-HpCDD	35822-46-9	0.375 JB	0.0294	5.35	1
11031	OCDD	3268-87-9	1.47 JB	0.0227	10.7	1
11031	2378-TCDF	51207-31-9	0.0399 U	0.0399	1.07	1
11031	12378-PeCDF	57117-41-6	0.0176 U	0.0176	5.35	1
11031	23478-PeCDF	57117-31-4	0.0173 U	0.0173	5.35	1
11031	123478-HxCDF	70648-26-9	0.0533 JBQ	0.0138	5.35	1
11031	123678-HxCDF	57117-44-9	0.0159 JBQ	0.0128	5.35	1
11031	123789-HxCDF	72918-21-9	0.0524 JBQ	0.0148	5.35	1
11031	234678-HxCDF	60851-34-5	0.0400 JBQ	0.0117	5.35	1
11031	1234678-HpCDF	67562-39-4	0.0864 JBQ	0.0100	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0659 JBQ	0.0150	5.35	1
11031	OCDF	39001-02-0	0.223 JBQ	0.0379	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/15/2011 09:15

Suite 210

Reported: 11/30/2011 12:50

Chantilly VA 20151

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.

Submitted: 11/15/2011 09:15

14420 Albemarle Point Place

Reported: 11/30/2011 12:50

Suite 210

Chantilly VA 20151

D0134 SDG#: DX155-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 19:57	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/30/11 at 12:50 PM

Group Number: 1276469

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6470172-6470175				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326002	Sample number(s): 6470172-6470175								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6470172-6470175					BKG: P470165 6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/30/11 at 12:50 PM

Group Number: 1276469

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6470172	65	75	60	68	73	65
6470173	72	80	68	78	83	75
6470174	70	81	64	74	81	74
6470175	69	78	66	73	79	72
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6470172	80	67	71	77	77	75
6470173	94	75	80	84	88	87
6470174	92	74	78	84	87	86
6470175	86	72	70	79	82	83
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6470172	73	77	86	65	80	
6470173	84	90	98	69	87	
6470174	85	89	97	69	87	
6470175	81	84	90	69	83	
Blank	97	105	114	86	102	
OPR	82	90	96	67	82	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

13013 1276469 6470172-75

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary								Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report TetraHr under EPA Method 8270C.						*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers										
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-SS Sleeve			X	X						
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-SS Sleeve			X	X						
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-SS Sleeve			X	X						
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-SS Sleeve			X	X						
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:	
		11/14/2011 / 1630												Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No.(s)											
		11-15-11 915		8767 9857 4950											

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 29, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/02/2011

Group Number: 1279187

SDG: DE291

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionDUP17-SA6-QC-120111 Soil
SL-023-SA8S-SB-4.0-5.0 Soil
SL-023-SA8S-SB-9.0-10.0 Soil
SL-022-SA8S-SB-4.0-5.0 Soil
SL-022-SA8S-SB-8.0-9.0 Soil
EB-SA6-SB-120111 WaterLancaster Labs (LLI) #6487688
6487689
6487690
6487691
6487692
6487693

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC

CDM Federal Services Program

Attn: Todd Burgess

COPY TO

1 COPY TO

Data Package Group

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Chad A. Moline
Group Leader



Analysis Report

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Page 1 of 7

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	18	U 18	180		1
04688	Acenaphthylene	208-96-8	18	U 18	180		1
04688	Aniline	62-53-3	180	U 180	540		1
04688	Anthracene	120-12-7	26	J 18	180		1
04688	Benidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzo(a)anthracene	56-55-3	18	U 18	180		1
04688	Benzo(a)pyrene	50-32-8	21	J 18	180		1
04688	Benzo(b)fluoranthene	205-99-2	32	J 18	180		1
04688	Benzo(g,h,i)perylene	191-24-2	83	J 18	180		1
04688	Benzo(k)fluoranthene	207-08-9	18	U 18	180		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180		1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Chrysene	218-01-9	29	J 18	180		1
04688	Dibenz(a,h)anthracene	53-70-3	18	U 18	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	Diethylphthalate	84-66-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	Dimethylphthalate	131-11-3	18	U 18	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	34	J 18	360		1
04688	Fluoranthene	206-44-0	18	U 18	180		1
04688	Fluorene	86-73-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	50	J 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	18	U 18	180		1
04688	2-Methylnaphthalene	91-57-6	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	18	U 18	180		1
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitrosodimethylamine	62-75-9	36	U 36	180		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	18	U 18	180		1
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenanthrene	85-01-8	18	U 18	180		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	Pyrene	129-00-0	18	U 18	180		1
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9		1
10401	Dalapon	75-99-0	4.7	U 4.7	9.7		1
10401	2,4-DB	94-82-6	0.67	U 0.67	1.8		1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3		1
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8		1
10401	MCPA	94-74-6	140	J 82	270		1
10401	MCPP (Mecoprop)	93-65-2	81	U 81	270		1
10401	2,4,5-T	93-76-5	0.088	U 0.088	0.18		1
10401	2,4,5-TP	93-72-1	0.096	J 0.081	0.18		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071	U 0.071	0.18		1
01363	Alpha BHC	319-84-6	0.037	U 0.037	0.18		1
01363	Beta BHC	319-85-7	0.065	U 0.065	0.18		1

*=This limit was used in the evaluation of the final result

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Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18		1
01363	Chlordane	57-74-9	0.86 U	0.86	3.7		1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.37		1
01363	p,p-DDE	72-55-9	0.071 U	0.071	0.37		1
01363	p,p-DDT	50-29-3	0.27 J	0.071	0.37		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.21 J	0.071	0.37		1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18		1
01363	Endosulfan II	33213-65-9	0.10 J	0.071	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.37		1
01363	Endrin	72-20-8	0.071 U	0.071	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.24 J	0.071	0.37		1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37		1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18		1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8		1
01363	Mirex	2385-85-5	0.071 U	0.071	0.37		1
01363	Toxaphene	8001-35-2	9.9 U	9.9	9.9		1
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.							
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.							
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	7.4	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8		1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8		1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8		1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8		1
10225	PCB-1254	11097-69-1	6.6	0.36	1.8		1
10225	PCB-1260	11096-82-5	13	0.42	1.8		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	540		1
10501	Isopropanol	67-63-0	110 U	110	540		1
10501	Methanol	67-56-1	130 J	110	540		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4 U	5.4	11		1
08283	Ethylene glycol	107-21-1	5.4 U	5.4	11		1
08283	Propylene glycol	57-55-6	5.4 U	5.4	11		1

*=This limit was used in the evaluation of the final result

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Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*		Dry Limit of Quantitation	Action Limit	Dilution Factor
GC Petroleum		SW-846 8015B	mg/kg		mg/kg		mg/kg	mg/kg	
Hydrocarbons									
10318	m-Terphenyl	92-06-8	1.6	U	1.6		3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6		3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6		3.8		1
GC Petroleum		SW-846 8015B modified	mg/kg		mg/kg		mg/kg	mg/kg	
Hydrocarbons									
10199	EFH (C12-C14)	n.a.	4.3	U	4.3		13		10
10199	EFH (C15-C20)	n.a.	4.3	U	4.3		13		10
10199	EFH (C21-C30)	n.a.	60		4.3		13		10
10199	EFH (C30 - C40)	n.a.	260		4.3		13		10
10199	EFH (C8-C11)	n.a.	4.3	U	4.3		13		10
Metals		SW-846 6010B	mg/kg		mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,000		6.41		21.2		1
07914	Boron	7440-42-8	4.71	J	0.382		5.30		1
01650	Calcium	7440-70-2	4,030		2.65		21.2		1
01654	Iron	7439-89-6	19,900		2.77		21.2		1
01656	Lithium	7439-93-2	20.3		0.66		2.1		1
01657	Magnesium	7439-95-4	4,380		0.466		10.6		1
06958	Manganese	7439-96-5	277		0.0382		0.530		1
10145	Phosphorus	7723-14-0	424		0.371		10.6		1
01662	Potassium	7440-09-7	2,470		12.0		53.0		1
01667	Sodium	7440-23-5	215		6.31		106		1
07968	Strontium	7440-24-6	24.1		0.0265		0.530		1
06969	Tin	7440-31-5	2.46	J	0.339		10.6		1
06970	Titanium	7440-32-6	975		0.0753		1.06		1
10146	Zirconium	7440-67-7	3.08	J	0.488		5.30		1
		SW-846 6020	mg/kg		mg/kg		mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0881	J	0.0800		0.216		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.									
06125	Arsenic	7440-38-2	4.74		0.0865		0.432		2
06126	Barium	7440-39-3	104		0.115		0.432		2
06127	Beryllium	7440-41-7	0.678		0.0173		0.108		2
06128	Cadmium	7440-43-9	0.208		0.0476		0.108		2
06131	Chromium	7440-47-3	21.8		0.130		0.432		2
06132	Cobalt	7440-48-4	7.02		0.0216		0.108		2
06133	Copper	7440-50-8	12.1		0.0865		0.432		2
06135	Lead	7439-92-1	11.6		0.0110		0.216		2
06138	Molybdenum	7439-98-7	2.22		0.0541		0.108		2
06139	Nickel	7440-02-0	13.9		0.108		0.432		2
06141	Selenium	7782-49-2	0.733		0.0627		0.432		2
06142	Silver	7440-22-4	0.0398	J	0.0154		0.108		2
06145	Thallium	7440-28-0	0.292		0.0324		0.108		2
06148	Vanadium	7440-62-2	42.4		0.0238		0.108		2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
06149	Zinc	SW-846 6020 7440-66-6	mg/kg 126	mg/kg 0.605	mg/kg 3.24	mg/kg	2
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 1.62	mg/kg 0.0377	mg/kg 0.537	mg/kg	5
Wet Chemistry							
07332	11a Anions by 300.0 - Fluoride	EPA 300.0 16984-48-8	mg/kg 1.9	mg/kg 0.85	mg/kg 1.1	mg/kg	1
10147	7a Perchlorate EPA 314.0	EPA 314.0 14797-73-0	ug/kg 9.7 U	ug/kg 9.7	ug/kg 32.4	ug/kg	1
05892	3a Cr VI by EPA 7199	SW-846 7199 18540-29-9	mg/kg 0.28 J	mg/kg 0.22	mg/kg 1.1	mg/kg	1
05895	16a Cyanide by 9012B	SW-846 9012B 57-12-5	mg/kg 0.19 U	mg/kg 0.19	mg/kg 0.52	mg/kg	1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.75	0.0100	0.0100		1
Wet Chemistry							
11624	Moisture Content by 160.3	EPA 160.3 modified n.a.	% 7.5	% 0.50	% 0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11337SLC026	12/11/2011 23:48	Holly Berry	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	113400037A	12/10/2011 06:23	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	113390023A	12/12/2011 23:54	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:07	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	113390023A	12/05/2011 18:30	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9101 SDG#: DE291-01FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	113400037A	12/07/2011 07:30	Kerrie A Freeburn	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	113360017A	12/05/2011 23:35	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	113420018A	12/09/2011 01:36	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	113390013A	12/06/2011 17:16	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113400014A	12/09/2011 12:44	Heather E Williams	10
11238	EFH Extraction - Soils	SW-846 3550B	1	113400014A	12/06/2011 18:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	113390013A	12/05/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	113360017A	12/05/2011 16:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	113420018A	12/08/2011 17:05	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:03	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:45	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:42	Nelli S Markaryan	5
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1

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Analysis Report

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Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/29/2011 13:53

Chantilly VA 20151

E9101 SDG#: DE291-01FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/09/2011 23:38	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:08	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11339102201B	12/06/2011 18:38	Venia B McFadden	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11339102201B	12/05/2011 15:45	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9		1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20		1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.7 J	6.8	20		1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9		1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9		1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20		1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9		1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	25,900	6.67	22.1		1
07914	Boron	7440-42-8	11.3	0.397	5.52		1
01650	Calcium	7440-70-2	70,400	13.8	110		5

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Analysis Report

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Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	33,500	14.4	110		5
01656	Lithium	7439-93-2	34.1	0.68	2.2		1
01657	Magnesium	7439-95-4	9,040	0.485	11.0		1
06958	Manganese	7439-96-5	319	0.0397	0.552		1
10145	Phosphorus	7723-14-0	608	0.386	11.0		1
01662	Potassium	7440-09-7	4,040	12.5	55.2		1
01667	Sodium	7440-23-5	138	6.56	110		1
07968	Strontium	7440-24-6	128	0.0276	0.552		1
06969	Tin	7440-31-5	2.54 J	0.353	11.0		1
06970	Titanium	7440-32-6	1,290	0.0783	1.10		1
10146	Zirconium	7440-67-7	9.49	0.508	5.52		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.236	0.0801	0.216		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	14.7	0.0866	0.433		2
06126	Barium	7440-39-3	130	0.287	1.08		5
06127	Beryllium	7440-41-7	1.14	0.0173	0.108		2
06128	Cadmium	7440-43-9	0.326	0.0476	0.108		2
06131	Chromium	7440-47-3	57.9	0.130	0.433		2
06132	Cobalt	7440-48-4	22.6	0.0216	0.108		2
06133	Copper	7440-50-8	59.0	0.0866	0.433		2
06135	Lead	7439-92-1	26.8	0.0110	0.216		2
06138	Molybdenum	7439-98-7	0.315	0.0541	0.108		2
06139	Nickel	7440-02-0	44.6	0.108	0.433		2
06141	Selenium	7782-49-2	0.217 J	0.0628	0.433		2
06142	Silver	7440-22-4	0.0463 J	0.0154	0.108		2
06145	Thallium	7440-28-0	0.760	0.0325	0.108		2
06148	Vanadium	7440-62-2	123	0.0238	0.108		2
06149	Zinc	7440-66-6	186	0.606	3.25		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.107		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.93	1.2		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.1		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.32 J	0.23	1.2		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

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Analysis Report

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Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.40	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.0	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 00:12	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/17/2011 17:12	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:26	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:31	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/09/2011 07:31	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:07	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 15:11	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2

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Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9102 SDG#: DE291-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/12/2011 06:48	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:48	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:16	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:39	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:02	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:22	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

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Analysis Report

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Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl) ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	19	J 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,300	6.57	21.7		1
07914	Boron	7440-42-8	9.40	0.391	5.43		1
01650	Calcium	7440-70-2	97,900	13.6	109		5

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	25,200	2.83	21.7		1
01656	Lithium	7439-93-2	26.7	0.67	2.2		1
01657	Magnesium	7439-95-4	6,940	0.478	10.9		1
06958	Manganese	7439-96-5	247	0.0391	0.543		1
10145	Phosphorus	7723-14-0	437	0.380	10.9		1
01662	Potassium	7440-09-7	3,320	12.3	54.3		1
01667	Sodium	7440-23-5	212	6.46	109		1
07968	Strontium	7440-24-6	172	0.0271	0.543		1
06969	Tin	7440-31-5	2.40 J	0.347	10.9		1
06970	Titanium	7440-32-6	822	0.0771	1.09		1
10146	Zirconium	7440-67-7	6.93	0.499	5.43		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0839 J	0.0803	0.217		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	5.97	0.0869	0.434		2
06126	Barium	7440-39-3	98.0	0.115	0.434		2
06127	Beryllium	7440-41-7	0.677	0.0174	0.109		2
06128	Cadmium	7440-43-9	0.293	0.0478	0.109		2
06131	Chromium	7440-47-3	39.3	0.130	0.434		2
06132	Cobalt	7440-48-4	8.87	0.0217	0.109		2
06133	Copper	7440-50-8	15.2	0.0869	0.434		2
06135	Lead	7439-92-1	9.32	0.0111	0.217		2
06138	Molybdenum	7439-98-7	0.275	0.0543	0.109		2
06139	Nickel	7440-02-0	18.7	0.109	0.434		2
06141	Selenium	7782-49-2	0.453	0.0630	0.434		2
06142	Silver	7440-22-4	0.0276 J	0.0154	0.109		2
06145	Thallium	7440-28-0	0.287	0.0326	0.109		2
06148	Vanadium	7440-62-2	65.8	0.0239	0.109		2
06149	Zinc	7440-66-6	61.2	0.608	3.26		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.6	0.89	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.2		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.28 J	0.22	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/29/2011 13:53

Chantilly VA 20151

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.52	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	9.7	0.50	0.50		1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 00:36	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/17/2011 17:43	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:44	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:34	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:11	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:15	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9103 SDG#: DE291-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:51	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:17	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:52	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:27	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:37	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190		1
04688	4-Chloroaniline	106-47-8	75	U 75	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	37	U 37	190		1
04688	4-Methylphenol	106-44-5	37	U 37	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	37	U 37	190		1
04688	4-Nitroaniline	100-01-6	75	U 75	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75	U 0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9		1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75	U 0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75	U 0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75	U 0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75	U 0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75	U 0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20		1
10138	Chrysene	218-01-9	0.37	U 0.37	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75	U 0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7	U 6.7	20		1
10138	Fluoranthene	206-44-0	0.75	U 0.75	1.9		1
10138	Fluorene	86-73-7	0.75	U 0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75	U 0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75	U 0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75	U 0.75	1.9		1
10138	Naphthalene	91-20-3	0.75	U 0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75	U 0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.7	U 6.7	20		1
10138	Phenanthrene	85-01-8	0.75	U 0.75	1.9		1
10138	Pyrene	129-00-0	0.75	U 0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44	U 0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,700	6.67	22.1		1
07914	Boron	7440-42-8	9.60	0.397	5.51		1
01650	Calcium	7440-70-2	102,000	13.8	110		5

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

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Page 3 of 5

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	29,000	2.88	22.1		1
01656	Lithium	7439-93-2	31.8	0.68	2.2		1
01657	Magnesium	7439-95-4	8,070	0.485	11.0		1
06958	Manganese	7439-96-5	298	0.0397	0.551		1
10145	Phosphorus	7723-14-0	444	0.386	11.0		1
01662	Potassium	7440-09-7	2,680	12.5	55.1		1
01667	Sodium	7440-23-5	106 J	6.56	110		1
07968	Strontium	7440-24-6	121	0.0276	0.551		1
06969	Tin	7440-31-5	2.48 J	0.353	11.0		1
06970	Titanium	7440-32-6	947	0.0783	1.10		1
10146	Zirconium	7440-67-7	7.88	0.507	5.51		1
		SW-846 6020	mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0824 U	0.0824	0.223		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.							
06125	Arsenic	7440-38-2	6.96	0.0891	0.445		2
06126	Barium	7440-39-3	88.3	0.118	0.445		2
06127	Beryllium	7440-41-7	0.759	0.0178	0.111		2
06128	Cadmium	7440-43-9	0.255	0.0490	0.111		2
06131	Chromium	7440-47-3	32.3	0.134	0.445		2
06132	Cobalt	7440-48-4	11.6	0.0223	0.111		2
06133	Copper	7440-50-8	22.7	0.0891	0.445		2
06135	Lead	7439-92-1	11.6	0.0114	0.223		2
06138	Molybdenum	7439-98-7	0.358	0.0557	0.111		2
06139	Nickel	7440-02-0	20.6	0.111	0.445		2
06141	Selenium	7782-49-2	0.239 J	0.0646	0.445		2
06142	Silver	7440-22-4	0.0190 J	0.0158	0.111		2
06145	Thallium	7440-28-0	0.328	0.0334	0.111		2
06148	Vanadium	7440-62-2	61.3	0.0245	0.111		2
06149	Zinc	7440-66-6	73.5	0.624	3.34		2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0080 J	0.0077	0.109		1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.7	0.90	1.1		1
		EPA 314.0	ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7		1
		SW-846 7199	mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.63 J	0.22	1.1		1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	

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Analysis Report

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Page 4 of 5

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/29/2011 13:53

Chantilly VA 20151

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.36	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.1	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 14:08	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/21/2011 17:21	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:03	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:38	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:15	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9104 SDG#: DE291-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 22:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:51	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:51	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl) ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl) ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9		1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20		1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20		1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9		1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9		1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20		1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9		1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	28,300	6.81	22.5		1
07914	Boron	7440-42-8	13.0	0.405	5.63		1
01650	Calcium	7440-70-2	54,300	2.81	22.5		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 5

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	38,800	14.7	113		5
01656	Lithium	7439-93-2	43.9	0.70	2.3		1
01657	Magnesium	7439-95-4	10,900	0.495	11.3		1
06958	Manganese	7439-96-5	303	0.0405	0.563		1
10145	Phosphorus	7723-14-0	500	0.394	11.3		1
01662	Potassium	7440-09-7	4,210	12.7	56.3		1
01667	Sodium	7440-23-5	149	6.69	113		1
07968	Strontium	7440-24-6	101	0.0281	0.563		1
06969	Tin	7440-31-5	2.57 J	0.360	11.3		1
06970	Titanium	7440-32-6	1,290	0.0799	1.13		1
10146	Zirconium	7440-67-7	8.60	0.518	5.63		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.109 J	0.0833	0.225		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.39	0.0900	0.450		2
06126	Barium	7440-39-3	110	0.119	0.450		2
06127	Beryllium	7440-41-7	0.816	0.0180	0.113		2
06128	Cadmium	7440-43-9	0.178	0.0495	0.113		2
06131	Chromium	7440-47-3	32.6	0.135	0.450		2
06132	Cobalt	7440-48-4	14.1	0.0225	0.113		2
06133	Copper	7440-50-8	28.7	0.0900	0.450		2
06135	Lead	7439-92-1	12.6	0.0115	0.225		2
06138	Molybdenum	7439-98-7	0.453	0.0563	0.113		2
06139	Nickel	7440-02-0	22.6	0.113	0.450		2
06141	Selenium	7782-49-2	0.128 J	0.0653	0.450		2
06142	Silver	7440-22-4	0.0160 U	0.0160	0.113		2
06145	Thallium	7440-28-0	0.414	0.0338	0.113		2
06148	Vanadium	7440-62-2	65.4	0.0248	0.113		2
06149	Zinc	7440-66-6	85.2	0.630	3.38		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.91	1.1		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.1		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.5	0.23	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

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Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/29/2011 13:53

Chantilly VA 20151

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.35	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.0	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 14:32	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/21/2011 17:54	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:21	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	113395708002	12/09/2011 07:42	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:19	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2

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Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

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Reported: 12/29/2011 13:53

Chantilly VA 20151

E9105 SDG#: DE291-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201B	12/15/2011 22:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 01:15	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 10:05	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201B	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

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Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Acetone	67-64-1	6 U	6	20		1
10904	Benzene	71-43-2	0.5 U	0.5	5		1
10904	Bromobenzene	108-86-1	1 U	1	5		1
10904	Bromochloromethane	74-97-5	1 U	1	5		1
10904	Bromodichloromethane	75-27-4	1 U	1	5		1
10904	Bromoform	75-25-2	1 U	1	5		1
10904	Bromomethane	74-83-9	1 U	1	5		1
10904	2-Butanone	78-93-3	3 U	3	10		1
10904	n-Butylbenzene	104-51-8	1 U	1	5		1
10904	sec-Butylbenzene	135-98-8	1 U	1	5		1
10904	tert-Butylbenzene	98-06-6	1 U	1	5		1
10904	Carbon Tetrachloride	56-23-5	1 U	1	5		1
10904	Chlorobenzene	108-90-7	0.8 U	0.8	5		1
10904	Chloroethane	75-00-3	1 U	1	5		1
10904	2-Chloroethyl Vinyl Ether	110-75-8	2 U	2	10		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10904	Chloroform	67-66-3	0.8 U	0.8	5		1
10904	Chloromethane	74-87-3	1 U	1	5		1
10904	2-Chlorotoluene	95-49-8	1 U	1	5		1
10904	4-Chlorotoluene	106-43-4	1 U	1	5		1
10904	Chlorotrifluoroethene	79-38-9	2 U	2	5		1
10904	1,2-Dibromo-3-chloropropane	96-12-8	2 U	2	5		1
10904	Dibromochloromethane	124-48-1	1 U	1	5		1
10904	1,2-Dibromoethane	106-93-4	1 U	1	5		1
10904	Dibromomethane	74-95-3	1 U	1	5		1
10904	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
10904	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
10904	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
10904	Dichlorodifluoromethane	75-71-8	2 U	2	5		1
10904	1,1-Dichloroethane	75-34-3	1 U	1	5		1
10904	1,2-Dichloroethane	107-06-2	1 U	1	5		1
10904	1,1-Dichloroethene	75-35-4	0.8 U	0.8	5		1
10904	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5		1
10904	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5		1
10904	1,2-Dichloropropane	78-87-5	1 U	1	5		1
10904	1,3-Dichloropropane	142-28-9	1 U	1	5		1
10904	2,2-Dichloropropane	594-20-7	1 U	1	5		1
10904	1,1-Dichloropropene	563-58-6	1 U	1	5		1
10904	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5		1
10904	trans-1,3-Dichloropropene	10061-02-6	1 U	1	5		1
10904	Ethylbenzene	100-41-4	0.8 U	0.8	5		1
10904	Freon 113	76-13-1	2 U	2	10		1
10904	Freon 133a	75-88-7	2 U	2	5		1
10904	Hexachlorobutadiene	87-68-3	2 U	2	5		1
10904	2-Hexanone	591-78-6	3 U	3	10		1
10904	Isopropylbenzene	98-82-8	1 U	1	5		1
10904	p-Isopropyltoluene	99-87-6	1 U	1	5		1
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5		1
10904	4-Methyl-2-pentanone	108-10-1	3 U	3	10		1

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Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Methylene Chloride	75-09-2	2 U	2	5		1
10904	n-Propylbenzene	103-65-1	1 U	1	5		1
10904	Styrene	100-42-5	1 U	1	5		1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5		1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5		1
10904	Tetrachloroethene	127-18-4	0.8 U	0.8	5		1
10904	Toluene	108-88-3	0.7 U	0.7	5		1
10904	1,2,3-Trichlorobenzene	87-61-6	1 U	1	5		1
10904	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
10904	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5		1
10904	1,1,2-Trichloroethane	79-00-5	0.8 U	0.8	5		1
10904	Trichloroethene	79-01-6	1 U	1	5		1
10904	Trichlorofluoromethane	75-69-4	2 U	2	5		1
10904	1,2,3-Trichloropropane	96-18-4	1 U	1	5		1
10904	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5		1
10904	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5		1
10904	Vinyl Chloride	75-01-4	1 U	1	5		1
10904	m+p-Xylene	179601-23-1	0.8 U	0.8	5		1
10904	o-Xylene	95-47-6	0.8 U	0.8	5		1
GC/MS	Volatiles	SW-846 8260B SIM	ug/l	ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5 U	0.5	2.0		1
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.954 J	0.544	1.09		1
The recovery of N-Nitrosodimethylamine was outside of QC limits in the LCSD. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.							
The surrogate recovery of n-nitrosodimethylamine-d6 was above the advisory QC limits in this sample. No further action was taken.							
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1 U	1	5		1
04678	Benzidine	92-87-5	22 U	22	65		1
04678	Benzoic acid	65-85-0	6 U	6	16		1
04678	Benzyl alcohol	100-51-6	5 U	5	16		1
04678	4-Bromophenyl-phenylether	101-55-3	1 U	1	5		1
04678	Carbazole	86-74-8	1 U	1	5		1
04678	4-Chloro-3-methylphenol	59-50-7	1 U	1	5		1
04678	4-Chloroaniline	106-47-8	1 U	1	5		1
04678	bis(2-Chloroethoxy)methane	111-91-1	1 U	1	5		1
04678	bis(2-Chloroethyl)ether	111-44-4	1 U	1	5		1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1 U	1	5		1
04678	2-Chloronaphthalene	91-58-7	2 U	2	5		1
04678	2-Chlorophenol	95-57-8	1 U	1	5		1
04678	4-Chlorophenyl-phenylether	7005-72-3	2 U	2	5		1
04678	Dibenzofuran	132-64-9	1 U	1	5		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/29/2011 13:53

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
04678	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
04678	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
04678	3,3'-Dichlorobenzidine	91-94-1	2 U	2	5		1
04678	2,4-Dichlorophenol	120-83-2	1 U	1	5		1
04678	2,4-Dimethylphenol	105-67-9	3 U	3	11		1
04678	3,5-Dimethylphenol	108-68-9	3 U	3	11		1
04678	4,6-Dinitro-2-methylphenol	534-52-1	5 U	5	16		1
04678	2,4-Dinitrophenol	51-28-5	11 U	11	32		1
04678	2,4-Dinitrotoluene	121-14-2	1 U	1	5		1
04678	2,6-Dinitrotoluene	606-20-2	1 U	1	5		1
04678	1,2-Diphenylhydrazine	122-66-7	1 U	1	5		1
04678	Hexachlorobenzene	118-74-1	1 U	1	5		1
04678	Hexachlorobutadiene	87-68-3	1 U	1	5		1
04678	Hexachlorocyclopentadiene	77-47-4	5 U	5	16		1
04678	Hexachloroethane	67-72-1	1 U	1	5		1
04678	Isophorone	78-59-1	1 U	1	5		1
04678	2-Methylphenol	95-48-7	1 U	1	5		1
04678	4-Methylphenol	106-44-5	2 U	2	5		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04678	2-Nitroaniline	88-74-4	1 U	1	5		1
04678	3-Nitroaniline	99-09-2	1 U	1	5		1
04678	4-Nitroaniline	100-01-6	1 U	1	5		1
04678	Nitrobenzene	98-95-3	1 U	1	5		1
04678	2-Nitrophenol	88-75-5	1 U	1	5		1
04678	4-Nitrophenol	100-02-7	11 U	11	32		1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	5		1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	5		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04678	Pentachlorophenol	87-86-5	3 U	3	16		1
04678	Phenol	108-95-2	1 U	1	5		1
04678	Tetralin	119-64-2	5 U	5	5		1
1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
04678	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
04678	2,4,5-Trichlorophenol	95-95-4	1 U	1	5		1
04678	2,4,6-Trichlorophenol	88-06-2	1 U	1	5		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.010 U	0.010	0.051		1
10137	Acenaphthylene	208-96-8	0.010 U	0.010	0.051		1
10137	Anthracene	120-12-7	0.010 U	0.010	0.051		1
10137	Benzo(a)anthracene	56-55-3	0.010 U	0.010	0.051		1
10137	Benzo(a)pyrene	50-32-8	0.010 U	0.010	0.051		1

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Analysis Report

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Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/29/2011 13:53

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Benzo(b)fluoranthene	205-99-2	0.010 U	0.010	0.051		1
10137	Benzo(g,h,i)perylene	191-24-2	0.010 U	0.010	0.051		1
10137	Benzo(k)fluoranthene	207-08-9	0.010 U	0.010	0.051		1
10137	Butylbenzylphthalate	85-68-7	0.051 U	0.051	1.0		1
10137	Di-n-butylphthalate	84-74-2	0.28 J	0.051	1.0		1
10137	Chrysene	218-01-9	0.010 U	0.010	0.051		1
10137	Dibenz(a,h)anthracene	53-70-3	0.010 U	0.010	0.051		1
10137	Diethylphthalate	84-66-2	0.077 J	0.051	1.0		1
10137	Dimethylphthalate	131-11-3	0.051 U	0.051	1.0		1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.075 J	0.051	1.0		1
10137	Fluoranthene	206-44-0	0.010 U	0.010	0.051		1
10137	Fluorene	86-73-7	0.010 U	0.010	0.051		1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.010 U	0.010	0.051		1
10137	1-Methylnaphthalene	90-12-0	0.010 U	0.010	0.051		1
10137	2-Methylnaphthalene	91-57-6	0.010 U	0.010	0.051		1
10137	Naphthalene	91-20-3	0.037 J	0.030	0.051		1
10137	N-Nitrosodimethylamine	62-75-9	0.010 U	0.010	0.051		1
10137	Di-n-octylphthalate	117-84-0	0.051 U	0.051	1.0		1
10137	Phenanthrene	85-01-8	0.030 U	0.030	0.051		1
10137	Pyrene	129-00-0	0.010 U	0.010	0.051		1
GC Volatiles	TPH GRO	SW-8015B	ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1
Explosives	SW-846 8330A		ug/l	ug/l	ug/l	ug/l	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.30 U	0.30	0.60	1000000	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.20 U	0.20	0.60	1000000	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.20 U	0.20	0.60	1000000	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.20 U	0.20	0.60	1000000	1
10131	1,3-Dinitrobenzene	99-65-0	0.20 U	0.20	0.60	1000000	1
10131	2,4-Dinitrotoluene	121-14-2	0.20 U	0.20	0.60	1000000	1
10131	2,6-Dinitrotoluene	606-20-2	0.20 U	0.20	0.60	1000000	1
10131	HMX	2691-41-0	0.65 U	0.65	2.0	1000000	1
10131	Nitrobenzene	98-95-3	0.20 U	0.20	0.60	1000000	1
10131	Nitroglycerin	55-63-0	5.2 U	5.2	15	1000000	1
10131	2-Nitrotoluene	88-72-2	0.20 U	0.20	0.60	1000000	1
10131	3-Nitrotoluene	99-08-1	0.40 U	0.40	1.2	1000000	1

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Analysis Report

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Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/l	ug/l	ug/l	ug/l	
10131	4-Nitrotoluene	99-99-0	0.60 U	0.60	1.2	1000000 0	1
10131	PETN	78-11-5	6.0 U	6.0	18	1000000 0	1
10131	RDX	121-82-4	1.1	0.20	0.60	1000000 0	1
10131	Tetryl	479-45-8	0.40 U	0.40	0.60	1000000 0	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.20 U	0.20	0.60	1000000 0	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.20 U	0.20	0.60	1000000 0	1
Herbicides		SW-846 8151A	ug/l	ug/l	ug/l	ug/l	
10407	2,4-D	94-75-7	0.17 U	0.17	0.54		1
10407	Dalapon	75-99-0	0.27 U	0.27	1.3		1
10407	2,4-DB	94-82-6	0.32 U	0.32	1.1		1
10407	Dicamba	1918-00-9	0.086 U	0.086	0.32		1
10407	Dinoseb	88-85-7	0.11 U	0.11	0.54		1
10407	2,4-DP (Dichlorprop)	120-36-5	0.17 U	0.17	0.54		1
10407	MCPA	94-74-6	320 U	320	1,100		1
10407	MCPP	93-65-2	54 U	54	210		1
10407	2,4,5-T	93-76-5	0.016 U	0.016	0.054		1
10407	2,4,5-TP	93-72-1	0.011 U	0.011	0.054		1
HPLC Organics		SW-846 8315A	ug/l	ug/l	ug/l	ug/l	
04144	20b Formaldehyde 8315A	50-00-0	10 U	10	50		1
Pesticides/PCBs		SW-846 8081A	ug/l	ug/l	ug/l	ug/l	
00177	Aldrin	309-00-2	0.0024 U	0.0024	0.012		1
00177	Alpha BHC	319-84-6	0.0035 U	0.0035	0.012		1
00177	Beta BHC	319-85-7	0.0034 U	0.0034	0.012		1
00177	Gamma BHC - Lindane	58-89-9	0.0024 U	0.0024	0.012		1
00177	Chlordane	57-74-9	0.14 U	0.14	0.59		1
00177	p,p-DDD	72-54-8	0.0059 U	0.0059	0.024		1
00177	p,p-DDE	72-55-9	0.0059 U	0.0059	0.024		1
00177	p,p-DDT	50-29-3	0.0059 U	0.0059	0.024		1
00177	Delta BHC	319-86-8	0.0034 U	0.0034	0.012		1
00177	Dieldrin	60-57-1	0.0063 U	0.0063	0.024		1
00177	Endosulfan I	959-98-8	0.0051 U	0.0051	0.012		1
00177	Endosulfan II	33213-65-9	0.018 U	0.018	0.024		1
00177	Endosulfan Sulfate	1031-07-8	0.0069 U	0.0069	0.024		1
00177	Endrin	72-20-8	0.0096 U	0.0096	0.024		1
00177	Endrin Aldehyde	7421-93-4	0.024 U	0.024	0.12		1
00177	Endrin Ketone	53494-70-5	0.0059 U	0.0059	0.024		1
00177	Heptachlor	76-44-8	0.0031 U	0.0031	0.012		1
00177	Heptachlor Epoxide	1024-57-3	0.0027 U	0.0027	0.012		1
00177	Methoxychlor	72-43-5	0.035 U	0.035	0.12		1
00177	Mirex	2385-85-5	0.10 U	0.10	0.30		1

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Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/l		ug/l	ug/l	ug/l	
00177	Toxaphene	8001-35-2	1.2	U	1.2	3.5		1
Pesticides/PCBs		SW-846 8082	ug/l		ug/l	ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.12	U	0.12	0.59		1
10227	Aroclor 5442	12642-23-8	0.12	U	0.12	0.59		1
10227	Aroclor 5460	11126-42-4	0.12	U	0.12	0.59		1
10227	PCB-1016	12674-11-2	0.12	U	0.12	0.59		1
10227	PCB-1221	11104-28-2	0.12	U	0.12	0.59		1
10227	PCB-1232	11141-16-5	0.24	U	0.24	0.59		1
10227	PCB-1242	53469-21-9	0.12	U	0.12	0.59		1
10227	PCB-1248	12672-29-6	0.12	U	0.12	0.59		1
10227	PCB-1254	11097-69-1	0.12	U	0.12	0.59		1
10227	PCB-1260	11096-82-5	0.18	U	0.18	0.59		1
10227	PCB-1262	37324-23-5	0.24	U	0.24	0.59		1
10227	PCB-1268	11100-14-4	0.19	U	0.19	0.59		1
GC Miscellaneous		SW-846 8015B	ug/l		ug/l	ug/l	ug/l	
06624	Ethanol	64-17-5	200	U	200	1,000		1
06624	Isopropanol	67-63-0	200	U	200	1,000		1
06624	Methanol	67-56-1	200	U	200	1,000		1
GC Miscellaneous		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
08278	Diethylene glycol	111-46-6	10	U	10	100		1
08278	Ethylene glycol	107-21-1	10	U	10	100		1
08278	Propylene glycol	57-55-6	10	U	10	100		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/l		mg/l	mg/l	mg/l	
10319	m-Terphenyl	92-06-8	0.076	U	0.076	0.24		1
10319	o-Terphenyl	84-15-1	0.076	U	0.076	0.24		1
10319	p-Terphenyl	92-94-4	0.076	U	0.076	0.24		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
10365	EFH (C12-C14)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C15-C20)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C21-C30)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C30 - C40)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C8-C11)	n.a.	0.11	U	0.11	0.68		1
Metals		SW-846 6010B	mg/l		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801	U	0.0801	0.200		1
08014	Boron	7440-42-8	0.0043	J	0.0022	0.0500		1
01750	Calcium	7440-70-2	0.0705	U	0.0705	0.200		1
01754	Iron	7439-89-6	0.0141	U	0.0141	0.200		1
01756	Lithium	7439-93-2	0.0076	U	0.0076	0.0200		1

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Analysis Report

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Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/29/2011 13:53

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
01757	Magnesium	7439-95-4	0.0067 U	0.0067	0.100		1
07058	Manganese	7439-96-5	0.00044 U	0.00044	0.0050		1
10143	Phosphorus	7723-14-0	0.0047 U	0.0047	0.100		1
01762	Potassium	7440-09-7	0.0874 U	0.0874	0.500		1
01767	Sodium	7440-23-5	0.0647 U	0.0647	1.00		1
08068	Strontium	7440-24-6	0.00045 J	0.00022	0.0050		1
07069	Tin	7440-31-5	0.0043 U	0.0043	0.0200		1
07070	Titanium	7440-32-6	0.00046 J	0.00046	0.0100		1
10144	Zirconium	7440-67-7	0.0042 U	0.0042	0.0500		1
		SW-846 6020	mg/l	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042 U	0.00042	0.0010		1
06025	Arsenic	7440-38-2	0.00095 U	0.00095	0.0020		1
06026	Barium	7440-39-3	0.00069 U	0.00069	0.0020		1
06027	Beryllium	7440-41-7	0.00013 U	0.00013	0.00050		1
06028	Cadmium	7440-43-9	0.00020 U	0.00020	0.00050		1
06031	Chromium	7440-47-3	0.00060 U	0.00060	0.0020		1
06032	Cobalt	7440-48-4	0.00010 U	0.00010	0.00050		1
06033	Copper	7440-50-8	0.00050 J	0.00038	0.0020		1
06035	Lead	7439-92-1	0.000080 U	0.000080	0.0010		1
06038	Molybdenum	7439-98-7	0.00035 J	0.00025	0.00050		1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020		1
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020		1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050		1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050		1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050		1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150		1
		SW-846 7470A	mg/l	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000026 U	0.000026	0.00020		1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10		1
00368	11b Anions by 300.0 - Nitrate	14797-55-8	0.050 U	0.050	0.10		1
		EPA 314.0	ug/l	ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0		1
		SW-846 7199	ug/l	ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0		1
		SW-846 9012B	mg/l	mg/l	mg/l	mg/l	
08255	16b Cyanide by 9012B	57-12-5	0.0050 U	0.0050	0.010		1
		SW-846 9040B	Std. Units	Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.8	0.010	0.010		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 8 of 9

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10904	1b Volatile Organics EPA8260B	SW-846 8260B	1	Y113402AA	12/06/2011 17:51	Chelsea B Eastep	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E113391AA	12/05/2011 12:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E113391AA	12/05/2011 12:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y113402AA	12/06/2011 17:51	Chelsea B Eastep	1
10962	21b NDMA by 1625C	EPA 1625C	1	11340WAA026	12/09/2011 12:52	Matthew S Woods	1
04678	5b SVOCs with Tetralin 8270C	SW-846 8270C	1	11340WAC026	12/12/2011 08:45	Brian K Graham	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11340WAG026	12/16/2011 16:42	Dale R Stoneroad	1
00813	BNA Water Extraction	SW-846 3510C	1	11340WAC026	12/06/2011 18:45	Nicholas W Shroyer	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11340WAG026	12/07/2011 08:40	Catherine R Wiker	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11340WAA026	12/06/2011 14:25	Wanda F Oswald	1
08229	9b TPH by EPA 8015B Gas C5- C12	TPH GRO SW-8015B	1	11340A20A	12/07/2011 04:39	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11340A20A	12/07/2011 04:39	Marie D John	1
10131	15b Energetics by 8330A	SW-846 8330A	1	113400003A	12/13/2011 01:19	James H Place	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	113370002A	12/05/2011 19:27	James H Place	1
10407	13b Herbicides by EPA 8151	SW-846 8151A	1	113370019A	12/06/2011 22:33	John W Perkins	1
00177	12b Pesticides by 8081A	SW-846 8081A	1	113400050A	12/09/2011 19:27	Lisa A Reinert	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	113400049A	12/12/2011 05:27	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	113400049A	12/07/2011 13:00	Kelli M Barto	1
11118	Pesticide Screen Waters Ext	SW-846 3510C	1	113400050A	12/07/2011 13:00	Kelli M Barto	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	113370019A	12/05/2011 08:30	Kerrie A Freeburn	1
01013	Formaldehyde Extraction	SW-846 8315A	1	113370002A	12/03/2011 08:40	Kelli M Barto	1
11122	Energetics Extraction	SW-846 8330	1	113400003A	12/06/2011 16:20	Kelli M Barto	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	113390042A	12/06/2011 20:52	Elizabeth J Marin	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	113390042A	12/07/2011 18:37	Elizabeth J Marin	1
08278	19b Glycols by 8015B	SW-846 8015B modified	1	113400056A	12/07/2011 04:14	Tyler O Griffin	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	113400019A	12/07/2011 13:55	Robert Brown	1
10365	9b TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113390010A	12/08/2011 05:20	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	113390010A	12/05/2011 17:52	Bronson L Cole	1
10304	Terphenyls water prep	SW-846 3510C	1	113400019A	12/06/2011 22:00	Elaine F Stoltzfus	1
01743	Aluminum	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
08014	Boron	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1

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Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 9 of 9

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.

Submitted: 12/02/2011 09:15

14420 Albemarle Point Place

Reported: 12/29/2011 13:53

Suite 210

Chantilly VA 20151

E9106 SDG#: DE291-06EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01750	Calcium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01754	Iron	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01756	Lithium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01757	Magnesium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07058	Manganese	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
10143	Phosphorus	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01762	Potassium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01767	Sodium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
08068	Strontium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07069	Tin	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07070	Titanium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
10144	Zirconium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
06024	Antimony	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06026	Barium	SW-846 6020	1	113416050004D	12/10/2011 07:36	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06033	Copper	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06035	Lead	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	113416050004C	12/10/2011 07:36	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	113416050004B	12/10/2011 07:36	Choon Y Tian	1
06042	Silver	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	113405713003	12/09/2011 07:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113411848003	12/09/2011 09:22	Denise K Connors	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	113416050004	12/09/2011 09:19	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	113405713003	12/08/2011 15:23	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11337373601A	12/03/2011 12:49	Ashley M Adams	1
00368	11b Anions by 300.0 - Nitrate	EPA 300.0	1	11337373601A	12/03/2011 12:49	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	11336281101A	12/02/2011 12:50	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11335495401B	12/02/2011 11:17	Elyse P Brunstetter	1
08255	16b Cyanide by 9012B	SW-846 9012B	1	11341117101B	12/07/2011 17:40	Venia B McFadden	1
08256	Cyanide Water Distillation	SW-846 9012B	1	11341117101B	12/07/2011 09:40	Nancy J Shoop	1
00200	17b pH by 9040B	SW-846 9040B	1	11341020003A	12/07/2011 19:00	Luz M Groff	1

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: E113391AA	Sample number(s): 6487693								
1,4-Dioxane	0.5 U	0.5	2.0	ug/l	101	107	80-123	6	30
Batch number: Y113402AA	Sample number(s): 6487693								
Acetone	6 U	6.	20	ug/l	101	101	49-234	1	30
Benzene	0.5 U	0.5	5	ug/l	102	99	79-120	3	30
Bromobenzene	1 U	1.	5	ug/l	107	107	80-120	0	30
Bromochloromethane	1 U	1.	5	ug/l	99	96	80-120	3	30
Bromodichloromethane	1 U	1.	5	ug/l	93	91	80-120	2	30
Bromoform	1 U	1.	5	ug/l	94	92	61-120	2	30
Bromomethane	1 U	1.	5	ug/l	77	76	44-120	2	30
2-Butanone	3 U	3.	10	ug/l	97	99	66-151	1	30
n-Butylbenzene	1 U	1.	5	ug/l	111	107	74-120	3	30
sec-Butylbenzene	1 U	1.	5	ug/l	115	112	78-120	3	30
tert-Butylbenzene	1 U	1.	5	ug/l	100	97	80-120	3	30
Carbon Tetrachloride	1 U	1.	5	ug/l	94	90	75-123	4	30
Chlorobenzene	0.8 U	0.8	5	ug/l	100	98	80-120	3	30
Chloroethane	1 U	1.	5	ug/l	81	77	49-129	5	30
2-Chloroethyl Vinyl Ether	2 U	2.	10	ug/l	96	94	56-129	2	30
Chloroform	0.8 U	0.8	5	ug/l	100	98	77-122	2	30
Chloromethane	1 U	1.	5	ug/l	101	91	60-129	10	30
2-Chlorotoluene	1 U	1.	5	ug/l	108	107	80-120	2	30
4-Chlorotoluene	1 U	1.	5	ug/l	105	101	80-120	3	30
Chlorotrifluoroethene	2 U	2.	5	ug/l	85	91	38-136	8	30
1,2-Dibromo-3-chloropropane	2 U	2.	5	ug/l	100	100	56-126	0	30
Dibromochloromethane	1 U	1.	5	ug/l	99	97	80-120	2	30
1,2-Dibromoethane	1 U	1.	5	ug/l	100	99	80-120	1	30
Dibromomethane	1 U	1.	5	ug/l	96	95	80-120	1	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	103	102	80-120	1	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	107	105	80-120	2	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	105	104	80-120	2	30
Dichlorodifluoromethane	2 U	2.	5	ug/l	92	88	47-120	5	30
1,1-Dichloroethane	1 U	1.	5	ug/l	99	96	79-120	4	30
1,2-Dichloroethane	1 U	1.	5	ug/l	92	91	70-130	1	30
1,1-Dichloroethene	0.8 U	0.8	5	ug/l	95	88	74-123	8	30
cis-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	101	99	80-120	2	30
trans-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	98	97	80-120	2	30
1,2-Dichloropropane	1 U	1.	5	ug/l	101	98	78-120	4	30
1,3-Dichloropropane	1 U	1.	5	ug/l	100	100	80-120	1	30
2,2-Dichloropropane	1 U	1.	5	ug/l	91	88	77-124	4	30
1,1-Dichloropropene	1 U	1.	5	ug/l	99	96	80-120	3	30
cis-1,3-Dichloropropene	1 U	1.	5	ug/l	96	94	80-120	2	30
trans-1,3-Dichloropropene	1 U	1.	5	ug/l	95	95	79-120	0	30
Ethylbenzene	0.8 U	0.8	5	ug/l	101	99	79-120	2	30
Freon 113	2 U	2.	10	ug/l	99	92	69-128	7	30
Freon 133a	2 U	2.	5	ug/l	88	93	77-120	6	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachlorobutadiene	2 U	2.	5	ug/l	101	99	58-120	2	30
2-Hexanone	3 U	3.	10	ug/l	98	98	65-136	0	30
Isopropylbenzene	1 U	1.	5	ug/l	101	98	77-120	3	30
p-Isopropyltoluene	1 U	1.	5	ug/l	109	107	80-120	2	30
Methyl Tertiary Butyl Ether	0.5 U	0.5	5	ug/l	99	100	76-120	1	30
4-Methyl-2-pentanone	3 U	3.	10	ug/l	97	97	70-121	1	30
Methylene Chloride	2 U	2.	5	ug/l	107	109	80-120	2	30
n-Propylbenzene	1 U	1.	5	ug/l	117	113	80-120	3	30
Styrene	1 U	1.	5	ug/l	95	91	80-120	4	30
1,1,1,2-Tetrachloroethane	1 U	1.	5	ug/l	95	94	80-120	1	30
1,1,2,2-Tetrachloroethane	1 U	1.	5	ug/l	112	113	71-120	0	30
Tetrachloroethene	0.8 U	0.8	5	ug/l	96	94	80-121	3	30
Toluene	0.7 U	0.7	5	ug/l	104	102	79-120	2	30
1,2,3-Trichlorobenzene	1 U	1.	5	ug/l	102	102	65-120	0	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	102	102	67-120	1	30
1,1,1-Trichloroethane	0.8 U	0.8	5	ug/l	96	93	75-127	4	30
1,1,2-Trichloroethane	0.8 U	0.8	5	ug/l	102	101	80-120	1	30
Trichloroethene	1 U	1.	5	ug/l	98	95	80-120	4	30
Trichlorofluoromethane	2 U	2.	5	ug/l	87	84	64-129	4	30
1,2,3-Trichloropropane	1 U	1.	5	ug/l	108	106	80-120	1	30
1,2,4-Trimethylbenzene	1 U	1.	5	ug/l	111	110	74-120	1	30
1,3,5-Trimethylbenzene	1 U	1.	5	ug/l	109	106	75-120	2	30
Vinyl Chloride	1 U	1.	5	ug/l	92	88	65-125	5	30
m+p-Xylene	0.8 U	0.8	5	ug/l	98	95	80-120	3	30
o-Xylene	0.8 U	0.8	5	ug/l	97	94	80-120	3	30

Batch number: 11337SLC026

Sample number(s): 6487688-6487692

Acenaphthene	17 U	17.	170	ug/kg	91		76-111
Acenaphthylene	17 U	17.	170	ug/kg	103		75-122
Aniline	170 U	170.	500	ug/kg	60		20-115
Anthracene	17 U	17.	170	ug/kg	96		76-112
Benzidine	1,200 U	1,200.	3,300	ug/kg	35		15-121
Benzo(a)anthracene	17 U	17.	170	ug/kg	97		73-112
Benzo(a)pyrene	17 U	17.	170	ug/kg	99		65-124
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	96		61-127
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	95		60-125
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	103		67-125
Benzoic acid	170 U	170.	500	ug/kg	94		62-113
Benzyl alcohol	170 U	170.	500	ug/kg	89		68-111
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	93		73-114
Butylbenzylphthalate	17 U	17.	170	ug/kg	101		75-115
Di-n-butylphthalate	17 U	17.	170	ug/kg	103		79-112
Carbazole	17 U	17.	170	ug/kg	98		77-113
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	90		74-119
4-Chloroaniline	67 U	67.	170	ug/kg	31		10-110
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	90		70-118
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	91		70-104
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	87		62-115
2-Chloronaphthalene	17 U	17.	170	ug/kg	100		49-128
2-Chlorophenol	17 U	17.	170	ug/kg	93		72-112
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	91		74-115
Chrysene	17 U	17.	170	ug/kg	96		76-113
Dibenz(a,h)anthracene	17 U	17.	170	ug/kg	96		61-126
Dibenzofuran	17 U	17.	170	ug/kg	91		74-116

*- Outside of specification

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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: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	88		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	87		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	87		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	50		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	95		75-111		
Diethylphthalate	17 U	17.	170	ug/kg	96		76-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	95		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	99		83-120		
Dimethylphthalate	17 U	17.	170	ug/kg	95		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	88		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	78		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	96		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	96		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	95		71-125		
bis(2-Ethylhexyl) phthalate	17 U	17.	330	ug/kg	100		75-117		
Fluoranthene	17 U	17.	170	ug/kg	103		78-116		
Fluorene	17 U	17.	170	ug/kg	97		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	93		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	88		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	87		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	86		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	92		64-119		
Isophorone	17 U	17.	170	ug/kg	91		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	86		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	90		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	91		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	84		66-117		
Naphthalene	17 U	17.	170	ug/kg	93		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	96		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	83		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	60		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	93		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	94		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	87		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	81		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	84		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	98		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	104		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	90		51-117		
Phenanthrene	17 U	17.	170	ug/kg	97		77-113		
Phenol	17 U	17.	170	ug/kg	89		58-112		
Pyrene	17 U	17.	170	ug/kg	97		75-115		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	92		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	98		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	97		78-111		
Batch number: 11339SLD026	Sample number(s): 6487689-6487692								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	107		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	110		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	106		73-113		

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	104		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	107		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	114		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	109		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	114		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	109		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	118		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	107		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	113		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	113		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	110		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	111		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	100		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	113		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	102		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	100		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	102		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	96		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	113		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	104		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	106		72-119		

Batch number: 11340WAA026 Sample number(s): 6487693
N-Nitrosodimethylamine 0.500 U 0.500 1.00 ng/l 77 63* 70-130 20 30

Batch number: 11340WAC026 Sample number(s): 6487693									
Aniline	1	U	1.	5	ug/l	83	77	38-116	7 30
Benzidine	20	U	20.	60	ug/l	79	70	34-117	13 30
Benzoic acid	6	U	6.	15	ug/l	38	34	10-69	11 30
Benzyl alcohol	5	U	5.	15	ug/l	80	74	66-97	7 30
4-Bromophenyl-phenylether	1	U	1.	5	ug/l	95	96	75-115	1 30
Carbazole	1	U	1.	5	ug/l	97	97	75-120	0 30
4-Chloro-3-methylphenol	1	U	1.	5	ug/l	84	85	70-123	1 30
4-Chloroaniline	1	U	1.	5	ug/l	81	76	24-128	6 30
bis(2-Chloroethoxy)methane	1	U	1.	5	ug/l	91	93	74-124	2 30
bis(2-Chloroethyl)ether	1	U	1.	5	ug/l	95	91	77-108	4 30
bis(2-Chloroisopropyl)ether	1	U	1.	5	ug/l	88	88	62-127	1 30
2-Chloronaphthalene	2	U	2.	5	ug/l	75	77	54-132	3 30
2-Chlorophenol	1	U	1.	5	ug/l	86	85	71-114	2 30
4-Chlorophenyl-phenylether	2	U	2.	5	ug/l	93	93	77-114	1 30
Dibenzofuran	1	U	1.	5	ug/l	91	90	75-117	1 30
1,2-Dichlorobenzene	1	U	1.	5	ug/l	85	84	55-118	1 30
1,3-Dichlorobenzene	1	U	1.	5	ug/l	84	83	61-111	1 30
1,4-Dichlorobenzene	1	U	1.	5	ug/l	83	81	53-119	3 30
3,3'-Dichlorobenzidine	2	U	2.	5	ug/l	73	65	37-117	11 30
2,4-Dichlorophenol	1	U	1.	5	ug/l	91	92	77-117	2 30
2,4-Dimethylphenol	3	U	3.	10	ug/l	90	87	72-110	3 30
3,5-Dimethylphenol	3	U	3.	10	ug/l	91	90	70-130	2 30
4,6-Dinitro-2-methylphenol	5	U	5.	15	ug/l	100	102	65-126	2 30
2,4-Dinitrophenol	10	U	10.	30	ug/l	87	88	52-131	0 30
2,4-Dinitrotoluene	1	U	1.	5	ug/l	94	94	76-119	1 30
2,6-Dinitrotoluene	1	U	1.	5	ug/l	96	97	76-118	1 30
1,2-Diphenylhydrazine	1	U	1.	5	ug/l	96	96	68-127	0 30
Hexachlorobenzene	1	U	1.	5	ug/l	97	97	75-119	1 30
Hexachlorobutadiene	1	U	1.	5	ug/l	84	86	57-124	2 30
Hexachlorocyclopentadiene	5	U	5.	15	ug/l	77	74	36-118	4 30
Hexachloroethane	1	U	1.	5	ug/l	81	79	52-113	2 30

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isophorone	1 U	1.	5	ug/l	92	94	74-117	2	30
2-Methylphenol	1 U	1.	5	ug/l	79	73	58-110	7	30
4-Methylphenol	2 U	2.	5	ug/l	69	65	49-108	6	30
2-Nitroaniline	1 U	1.	5	ug/l	96	96	75-120	0	30
3-Nitroaniline	1 U	1.	5	ug/l	93	91	74-113	2	30
4-Nitroaniline	1 U	1.	5	ug/l	71	66	59-100	7	30
Nitrobenzene	1 U	1.	5	ug/l	90	94	75-109	4	30
2-Nitrophenol	1 U	1.	5	ug/l	93	94	76-118	1	30
4-Nitrophenol	10 U	10.	30	ug/l	35	33	16-78	9	30
N-Nitroso-di-n-propylamine	1 U	1.	5	ug/l	85	85	69-110	0	30
N-Nitrosodiphenylamine	2 U	2.	5	ug/l	95	98	67-136	2	30
Pentachlorophenol	3 U	3.	15	ug/l	97	97	53-110	0	30
Phenol	1 U	1.	5	ug/l	42	37	21-67	12	30
Tetralin	5 U	5.	5	ug/l					
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	88	90	71-112	2	30
2,4,5-Trichlorophenol	1 U	1.	5	ug/l	95	94	79-107	1	30
2,4,6-Trichlorophenol	1 U	1.	5	ug/l	95	94	76-120	1	30

Batch number: 11340WAG026

Sample number(s): 6487693

Acenaphthene	0.010 U	0.010	0.050	ug/l	100	98	74-109	2	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	104	99	70-110	5	30
Anthracene	0.010 U	0.010	0.050	ug/l	103	101	66-111	1	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	97	98	72-114	1	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	99	98	60-127	0	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	108	106	58-151	2	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	98	95	57-131	3	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	103	103	59-130	0	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	95	95	40-138	0	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	113	108	56-148	4	30
Chrysene	0.010 U	0.010	0.050	ug/l	99	94	76-116	5	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	100	97	55-134	3	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	111	107	37-148	4	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	105	100	40-119	5	30
Bis(2-Ethylhexyl)phthalate	0.050 U	0.050	1.0	ug/l	101	101	57-154	1	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	100	95	75-116	5	30
Fluorene	0.010 U	0.010	0.050	ug/l	112	95	75-114	16	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	99	97	53-158	2	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	97	93	71-117	4	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	93	93	75-115	0	30
Naphthalene	0.030 U	0.030	0.050	ug/l	98	97	72-109	1	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	66	63	36-89	4	30
Di-n-octylphthalate	0.050 U	0.050	1.0	ug/l	99	100	57-145	1	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	99	97	76-111	2	30
Pyrene	0.010 U	0.010	0.050	ug/l	99	95	69-118	4	30

Batch number: 11340A20A
TPH-GRO S.CA water C5-C12

Sample number(s): 6487693
20 U 20. 50

Batch number: 113400003A										
Sample number(s): 6487693										
4-Amino-2,6-Dinitrotoluene	0.30	U	0.30	0.60	ug/l	110	110	80-120	0	30
2-Amino-4,6-Dinitrotoluene	0.20	U	0.20	0.60	ug/l	98	100	80-120	2	30
2,6-Diamino-4-nitrotoluene	0.20	U	0.20	0.60	ug/l	93	97	50-122	4	30
2,4-Diamino-6-nitrotoluene	0.20	U	0.20	0.60	ug/l	93	97	50-122	4	30
1,3-Dinitrobenzene	0.20	U	0.20	0.60	ug/l	100	110	72-117	10	30
2,4-Dinitrotoluene	0.20	U	0.20	0.60	ug/l	95	97	80-120	2	30
2,6-Dinitrotoluene	0.20	U	0.20	0.60	ug/l	100	110	80-120	10	30
HMX	0.65	U	0.65	2.0	ug/l	96	98	65-125	2	30
Nitrobenzene	0.20	U	0.20	0.60	ug/l	88	92	75-121	4	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Nitroglycerin	5.2 U	5.2	15	ug/l	96	100	80-120	4	30
2-Nitrotoluene	0.20 U	0.20	0.60	ug/l	92	94	74-120	2	30
3-Nitrotoluene	0.40 U	0.40	1.2	ug/l	97	99	69-107	2	30
4-Nitrotoluene	0.60 U	0.60	1.2	ug/l	91	92	80-120	1	30
PETN	6.0 U	6.0	18	ug/l	104	104	80-120	0	30
RDX	0.20 U	0.20	0.60	ug/l	95	98	70-125	3	30
Tetryl	0.40 U	0.40	0.60	ug/l	89	89	31-148	0	30
1,3,5-Trinitrobenzene	0.20 U	0.20	0.60	ug/l	81	88	53-129	8	30
2,4,6-Trinitrotoluene	0.20 U	0.20	0.60	ug/l	100	100	76-109	0	30
Batch number: 113370002A	Sample number(s): 6487693								
20b Formaldehyde 8315A	10 U	10.	50	ug/l	104	106	69-130	2	30
Batch number: 113370019A	Sample number(s): 6487693								
2,4-D	0.16 U	0.16	0.50	ug/l	96	96	73-157	0	30
Dalapon	0.25 U	0.25	1.3	ug/l	81	84	40-100	4	30
2,4-DB	0.30 U	0.30	1.0	ug/l	96	96	65-130	0	30
Dicamba	0.080 U	0.080	0.30	ug/l	112	116	68-135	4	30
Dinoseb	0.10 U	0.10	0.50	ug/l	88	88	32-91	0	30
2,4-DP (Dichlorprop)	0.16 U	0.16	0.50	ug/l	104	112	76-170	7	30
MCPA	300 U	300.	1,000	ug/l	96	102	65-128	6	30
MCPA	50 U	50.	200	ug/l	108	108	67-137	0	30
2,4,5-T	0.015 U	0.015	0.050	ug/l	100	104	63-147	4	30
2,4,5-TP	0.010 U	0.010	0.050	ug/l	96	100	63-134	4	30
Batch number: 113400037A	Sample number(s): 6487688								
2,4-D	1.2 U	1.2	3.6	ug/kg	92		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	30		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	96		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	106		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	11		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	102		62-170		
MCPA	76 U	76.	250	ug/kg	102		60-130		
MCPA (Mecoprop)	75 U	75.	250	ug/kg	101		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	99		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	84		68-114		
Batch number: 113390023A	Sample number(s): 6487688								
Aldrin	0.066 U	0.066	0.17	ug/kg	73		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	68		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	78		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	71		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	84		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	82		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	69		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	81		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	78		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	71		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	80		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	85		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	76		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	68		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	85		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	74		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	79		65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg	78		59-125		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					
Batch number: 113400026A Sample number(s): 6487688-6487692									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	73	76	36-106	4	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	77		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	99		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 113400049A Sample number(s): 6487693									
Aroclor 5432	0.10 U	0.10	0.50	ug/l					
Aroclor 5442	0.10 U	0.10	0.50	ug/l	76	78	35-84	3	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	84	82	51-128	2	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	98	92	56-135	6	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					
Batch number: 113400050A Sample number(s): 6487693									
Aldrin	0.0020 U	0.0020	0.010	ug/l	101	111	54-159	10	30
Alpha BHC	0.0030 U	0.0030	0.010	ug/l	100	110	59-146	10	30
Beta BHC	0.0029 U	0.0029	0.010	ug/l	103	113	73-147	10	30
Gamma BHC - Lindane	0.0020 U	0.0020	0.010	ug/l	100	100	68-128	0	30
Chlordane	0.12 U	0.12	0.50	ug/l					
p,p-DDD	0.0050 U	0.0050	0.020	ug/l	125	125	71-139	0	30
p,p-DDE	0.0050 U	0.0050	0.020	ug/l	111	116	66-130	5	30
p,p-DDT	0.0050 U	0.0050	0.020	ug/l	95	100	53-126	5	30
Delta BHC	0.0029 U	0.0029	0.010	ug/l	113	124	76-148	9	30
Dieldrin	0.0053 U	0.0053	0.020	ug/l	115	115	76-132	0	30
Endosulfan I	0.0043 U	0.0043	0.010	ug/l	91	93	68-128	2	30
Endosulfan II	0.015 U	0.015	0.020	ug/l	100	105	59-144	5	30
Endosulfan Sulfate	0.0058 U	0.0058	0.020	ug/l	125	130	71-142	4	30
Endrin	0.0081 U	0.0081	0.020	ug/l	90	90	52-132	0	30
Endrin Aldehyde	0.020 U	0.020	0.10	ug/l	115	115	68-139	0	20
Endrin Ketone	0.0050 U	0.0050	0.020	ug/l	125	125	69-146	0	30
Heptachlor	0.0026 U	0.0026	0.010	ug/l	100	100	57-126	0	30
Heptachlor Epoxide	0.0023 U	0.0023	0.010	ug/l	112	112	73-156	0	30
Methoxychlor	0.030 U	0.030	0.10	ug/l	110	110	52-133	0	30
Mirex	0.085 U	0.085	0.25	ug/l					
Toxaphene	1.0 U	1.0	3.0	ug/l					
Batch number: 113360017A Sample number(s): 6487688									
Ethanol	100 U	100.	500	ug/kg	93		71-129		
Isopropanol	100	100.	500	ug/kg	97		75-125		

*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Methanol	U 100	100.	500	ug/kg	81		68-129		
Batch number: 113390042A	Sample number(s): 6487693								
Ethanol	200 U	200.	1,000	ug/l	108		78-116		
Isopropanol	200 U	200.	1,000	ug/l	104		75-125		
Methanol	200 U	200.	1,000	ug/l	112		76-122		
Batch number: 113400056A	Sample number(s): 6487693								
Diethylene glycol	10 U	10.	100	mg/l	110		67-126		
Ethylene glycol	10 U	10.	100	mg/l	80		78-136		
Propylene glycol	10 U	10.	100	mg/l	80		65-132		
Batch number: 113420018A	Sample number(s): 6487688								
Diethylene glycol	5.0 U	5.0	10	mg/kg	101		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	107		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 113390010A	Sample number(s): 6487693								
EFH (C12-C14)	0.10 U	0.10	0.60	mg/l	86	76	63-121	12	30
EFH (C15-C20)	0.10 U	0.10	0.60	mg/l	87	77	72-124	11	30
EFH (C21-C30)	0.10 U	0.10	0.60	mg/l	85	72	64-123	17	30
EFH (C30 - C40)	0.10 U	0.10	0.60	mg/l	87	73	73-124	17	30
EFH (C8-C11)	0.10 U	0.10	0.60	mg/l	88	78	43-107	12	30
Batch number: 113390013A	Sample number(s): 6487688								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		69-109		
Batch number: 113400014A	Sample number(s): 6487688								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	81		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	84		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	88		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	84		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	65		49-107		
Batch number: 113400019A	Sample number(s): 6487693								
m-Terphenyl	0.080 U	0.080	0.25	mg/l	96	100	61-108	4	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	96	98	75-125	2	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	96	98	63-110	2	20
Batch number: 113391026002A	Sample number(s): 6487688-6487692								
Antimony	0.0705 U	0.0705	0.190	mg/kg	74		40-227		
Arsenic	0.0762 U	0.0762	0.381	mg/kg	102		83-111		
Beryllium	0.0152 U	0.0152	0.0952	mg/kg	103		84-112		
Cadmium	0.0419 U	0.0419	0.0952	mg/kg	103		83-111		
Chromium	0.114 U	0.114	0.381	mg/kg	115		77-123		
Cobalt	0.0190 U	0.0190	0.0952	mg/kg	107		85-114		
Copper	0.0762 U	0.0762	0.381	mg/kg	104		81-110		
Lead	0.0126 J	0.0097	0.190	mg/kg	101		84-112		
Nickel	0.0952 U	0.0952	0.381	mg/kg	100		81-110		
Silver	0.0135 U	0.0135	0.0952	mg/kg	104		83-112		
Thallium	0.0286 U	0.0286	0.0952	mg/kg	101		82-112		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Vanadium	0.0210 U	0.0210	0.0952	mg/kg	102		76-110		
Zinc	0.838 J	0.533	2.86	mg/kg	101		82-110		
Batch number: 113391026002B	Sample number(s): 6487688-6487692								
Selenium	0.0675 J	0.0552	0.381	mg/kg	96		79-110		
Batch number: 113391026002C	Sample number(s): 6487688-6487692								
Molybdenum	0.0476 U	0.0476	0.0952	mg/kg	100		80-110		
Batch number: 113391026002D	Sample number(s): 6487688-6487692								
Barium	0.101 U	0.101	0.381	mg/kg	102		83-110		
Batch number: 113395708002	Sample number(s): 6487688-6487692								
Aluminum	6.05 U	6.05	20.0	mg/kg	83		40-127		
Boron	0.360 U	0.360	5.00	mg/kg	106		83-110		
Calcium	4.62 J	2.50	20.0	mg/kg	102		81-110		
Iron	4.80 J	2.61	20.0	mg/kg	88		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	102		80-120		
Magnesium	4.81 J	0.440	10.0	mg/kg	88		63-116		
Manganese	0.0360 U	0.0360	0.500	mg/kg	103		85-116		
Phosphorus	0.983 J	0.350	10.0	mg/kg	104		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	98		71-110		
Sodium	5.95 U	5.95	100	mg/kg	99		76-110		
Strontium	0.0250 U	0.0250	0.500	mg/kg	103		84-110		
Tin	1.52 J	0.320	10.0	mg/kg	105		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	87		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	96		80-120		
Batch number: 113395711003	Sample number(s): 6487688-6487692								
Mercury	0.0067 U	0.0067	0.0947	mg/kg	92		83-119		
Batch number: 113405713003	Sample number(s): 6487693								
Mercury	0.000026 U	0.00002	0.00020	mg/l	102	101	80-120	1	20
Batch number: 113411848003	Sample number(s): 6487693								
Aluminum	0.0801 U	0.0801	0.200	mg/l	101	100	90-112	1	20
Boron	0.0022 U	0.0022	0.0500	mg/l	96	96	89-110	0	20
Calcium	0.0705 U	0.0705	0.200	mg/l	104	105	90-110	0	20
Iron	0.0141 U	0.0141	0.200	mg/l	117*	105	90-112	11	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	101	101	90-110	0	20
Magnesium	0.0430 J	0.0067	0.100	mg/l	107	107	90-110	1	20
Manganese	0.00044 U	0.00044	0.0050	mg/l	100	101	90-110	0	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	101	101	90-110	0	20
Potassium	0.0874 U	0.0874	0.500	mg/l	106	106	85-115	0	20
Sodium	0.0647 U	0.0647	1.00	mg/l	102	102	87-114	0	20
Strontium	0.00022 U	0.00022	0.0050	mg/l	100	101	90-110	0	20
Tin	0.0043 U	0.0043	0.0200	mg/l	98	99	90-110	0	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	101	101	90-113	0	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	102	103	90-110	1	20
Batch number: 113416050004A	Sample number(s): 6487693								
Antimony	0.00042 U	0.00042	0.0010	mg/l	106	109	87-110	3	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	110	110	86-111	0	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	105	108	90-113	3	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	109	110	90-114	0	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	109	111	90-118	2	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	113	112	87-113	1	20

*- Outside of specification

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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: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Copper	0.00038 U	0.00038	0.0020	mg/l	112	113	90-113	1	20
Lead	0.000080 U	0.00008	0.0010	mg/l	104	107	90-115	3	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	108	107	90-113	1	20
Silver	0.000098 U	0.00009	0.00050	mg/l	109	107	90-115	2	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	105	101	89-116	4	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	110	109	89-116	1	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	110	110	90-116	0	20
Batch number: 113416050004B	Sample number(s): 6487693								
Selenium	0.00027 U	0.00027	0.0020	mg/l	103	105	85-114	2	20
Batch number: 113416050004C	Sample number(s): 6487693								
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	108	107	89-115	1	20
Batch number: 113416050004D	Sample number(s): 6487693								
Barium	0.00069 U	0.00069	0.0020	mg/l	108	106	88-113	2	20
Batch number: 11335495401B	Sample number(s): 6487693								
3b Cr VI by EPA 7199	5.0 U	5.0	10.0	ug/l	99	100	90-110	1	20
Batch number: 11336281101A	Sample number(s): 6487693								
7b Perchlorate EPA 314.0	0.70 U	0.70	2.0	ug/l	107	101	85-115	5	20
Batch number: 11337373601A	Sample number(s): 6487693								
11b Anions by 300.0 - Fluoride	0.080 U	0.080	0.10	mg/l	100	100	90-110	0	20
11b Anions by 300.0 - Nitrate	0.050 U	0.050	0.10	mg/l	101	102	90-110	1	20
Batch number: 11339102201B	Sample number(s): 6487688								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	101		80-120		
Batch number: 11341117101B	Sample number(s): 6487693								
16b Cyanide by 9012B	0.0050 U	0.0050	0.010	mg/l	102	108	90-110	6	20
Batch number: 11341243202A	Sample number(s): 6487688-6487692								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	100		80-120		
Batch number: 11342342201B	Sample number(s): 6487688-6487692								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	100		85-115		
Batch number: 11348621201A	Sample number(s): 6487688-6487691								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	99		90-110		
Batch number: 11348621201B	Sample number(s): 6487692								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	99		90-110		
Batch number: 11341020003A	Sample number(s): 6487693								
17b pH by 9040B					100	100	90-110	0	3
Batch number: 11346039401B	Sample number(s): 6487688-6487692								
17a pH by 9045C					100		95-105		
Batch number: 11343162401B	Sample number(s): 6487688-6487692								
Moisture Content by 160.3					100		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11337SLC026	Sample number(s): 6487688-6487692 UNSPK: P487630								
Acenaphthene	90	92	75-115	2	30				
Acenaphthylene	102	102	81-110	0	30				
Aniline	0*	0*	18-116	0	30				
Anthracene	95	93	75-115	1	30				
Benzidine	0*	0*	35-141	0	30				
Benzo(a)anthracene	85	85	65-122	1	30				
Benzo(a)pyrene	99	100	57-126	1	30				
Benzo(b)fluoranthene	94	91	59-125	3	30				
Benzo(g,h,i)perylene	96	102	59-127	6	30				
Benzo(k)fluoranthene	94	93	56-132	1	30				
Benzoic acid	0*	0*	10-173	0	30				
Benzyl alcohol	0*	0*	67-115	0	30				
4-Bromophenyl-phenylether	94	92	67-129	2	30				
Butylbenzylphthalate	98	91	73-134	6	30				
Di-n-butylphthalate	95	91	67-123	4	30				
Carbazole	96	91	64-120	5	30				
4-Chloro-3-methylphenol	91	83	62-122	9	30				
4-Chloroaniline	65	63	13-107	3	30				
bis(2-Chloroethoxy)methane	88	84	75-104	4	30				
bis(2-Chloroethyl)ether	85	85	60-116	0	30				
bis(2-Chloroisopropyl)ether	87	89	55-142	3	30				
2-Chloronaphthalene	86	76	50-141	11	30				
2-Chlorophenol	92	91	73-121	1	30				
4-Chlorophenyl-phenylether	88	88	80-109	0	30				
Chrysene	86	82	62-128	4	30				
Dibenz(a,h)anthracene	93	94	65-125	2	30				
Dibenzofuran	90	89	71-112	1	30				
1,2-Dichlorobenzene	92	86	66-108	7	30				
1,3-Dichlorobenzene	86	88	63-109	2	30				
1,4-Dichlorobenzene	88	87	58-108	1	30				
3,3'-Dichlorobenzidine	60	61	28-109	1	30				
2,4-Dichlorophenol	96	89	66-123	8	30				
Diethylphthalate	91	93	66-118	2	30				
2,4-Dimethylphenol	89	92	68-118	3	30				
3,5-Dimethylphenol	99	95	71-127	5	30				
Dimethylphthalate	89	90	64-118	1	30				
4,6-Dinitro-2-methylphenol	0*	0*	11-126	0	30				
2,4-Dinitrophenol	114	108	20-143	5	30				
2,4-Dinitrotoluene	80	79	56-129	1	30				
2,6-Dinitrotoluene	83	88	69-123	7	30				
1,2-Diphenylhydrazine	92	91	71-129	1	30				
bis(2-Ethylhexyl)phthalate	92	90	63-122	3	30				
Fluoranthene	98	94	73-112	4	30				
Fluorene	93	94	63-121	2	30				
Hexachlorobenzene	90	83	77-114	8	30				
Hexachlorobutadiene	89	96	62-120	7	30				
Hexachlorocyclopentadiene	81	71	10-153	12	30				
Hexachloroethane	87	87	57-109	0	30				
Indeno(1,2,3-cd)pyrene	92	93	61-126	2	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Isophorone	88	84	73-102	4	30				
1-Methylnaphthalene	85	80	64-122	5	30				
2-Methylnaphthalene	88	85	76-114	3	30				
2-Methylphenol	96	89	75-111	7	30				
4-Methylphenol	87	80	59-123	8	30				
Naphthalene	92	88	72-116	4	30				
2-Nitroaniline	86	90	67-125	6	30				
3-Nitroaniline	80	78	59-122	1	30				
4-Nitroaniline	70	78	41-109	12	30				
Nitrobenzene	89	89	57-125	0	30				
2-Nitrophenol	85	85	56-127	0	30				
4-Nitrophenol	0*	0*	37-129	0	30				
N-Nitroso-di-n-propylamine	76	85	60-116	11	30				
N-Nitrosodimethylamine	88	84	47-116	4	30				
N-Nitrosodiphenylamine	96	93	71-122	3	30				
Di-n-octylphthalate	104	106	56-126	2	30				
Pentachlorophenol	155*	154*	28-127	1	30				
Phenanthrene	94	92	65-125	2	30				
Phenol	85	85	58-126	1	30				
Pyrene	94	91	74-126	4	30				
1,2,4-Trichlorobenzene	88	88	72-115	0	30				
2,4,5-Trichlorophenol	99	93	58-129	6	30				
2,4,6-Trichlorophenol	87	92	56-134	6	30				

Batch number: 11339SLD026	Sample number(s): 6487689-6487692 UNSPK: P487630								
Acenaphthene	101	94	63-105	7	30				
Acenaphthylene	110	108	67-114	2	30				
Anthracene	118*	118*	73-115	0	30				
Benzo(a)anthracene	131*	118	59-128	11	30				
Benzo(a)pyrene	126	143*	58-142	12	30				
Benzo(b)fluoranthene	192*	208*	54-163	8	30				
Benzo(g,h,i)perylene	79	79	33-141	0	30				
Benzo(k)fluoranthene	139	142	57-153	2	30				
Butylbenzylphthalate	155	174*	57-173	12	30				
Di-n-butylphthalate	148	167*	65-148	12	30				
Chrysene	154*	152*	67-123	1	30				
Dibenz(a,h)anthracene	65	62	22-133	6	30				
Diethylphthalate	139*	142*	70-136	2	30				
Dimethylphthalate	148*	148*	74-118	0	30				
Bis(2-Ethylhexyl)phthalate	170*	729*	39-167	124*	30				
Fluoranthene	135	120	51-149	12	30				
Fluorene	111	104	66-122	7	30				
Indeno(1,2,3-cd)pyrene	53	62	21-143	15	30				
1-Methylnaphthalene	109	95	72-123	13	30				
2-Methylnaphthalene	106*	94	64-103	12	30				
Naphthalene	108*	100	61-102	8	30				
N-Nitrosodimethylamine	109	92	48-113	17	30				
Di-n-octylphthalate	151	189	40-192	23	30				
Phenanthrene	113	103	62-122	9	30				
Pyrene	148*	127	51-131	15	30				

Batch number: 113400037A	Sample number(s): 6487688 UNSPK: P487630								
2,4-D	99	85	17-180	15	35				

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Dalapon	37	36	10-125	3	50			
2,4-DB	81	74	10-201	9	50			
Dicamba	139	102	10-190	30	50			
Dinoseb	24	22	10-46	9	35			
2,4-DP (Dichlorprop)	113	94	33-178	18	50			
MCPA	149	112	10-213	26	50			
MCPP (Mecoprop)	138	71	10-184	64*	50			
2,4,5-T	89	84	10-156	6	35			
2,4,5-TP	93	72	24-141	25	35			

Batch number: 113390023A	Sample number(s): 6487688	UNSPK: P487630
Aldrin	30	0*
Alpha BHC	0*	16
Beta BHC	31	0*
Gamma BHC - Lindane	32	15
p,p-DDD	0*	0*
p,p-DDE	54	26
p,p-DDT	0*	0*
Delta BHC	0*	0*
Dieldrin	0*	0*
Endosulfan I	0*	0*
Endosulfan II	0*	34
Endosulfan Sulfate	31	0*
Endrin	40	21
Endrin Aldehyde	11	30
Endrin Ketone	0*	0*
Heptachlor	29	0*
Heptachlor Epoxide	36	12*
Methoxychlor	29*	21*

Batch number: 113400026A	Sample number(s): 6487688-6487692	UNSPK: P488950
PCB-1016	63	74
PCB-1260	72	93

Batch number: 113360017A	Sample number(s): 6487688	UNSPK: P487630
Ethanol	81	80
Isopropanol	88	88
Methanol	65	62

Batch number: 113390042A	Sample number(s): 6487693	UNSPK: P487124
Ethanol	112	112
Isopropanol	104	104
Methanol	112	112

Batch number: 113400056A	Sample number(s): 6487693	UNSPK: 6487693
Diethylene glycol	105	120
Ethylene glycol	90	125
Propylene glycol	90*	125

Batch number: 113420018A	Sample number(s): 6487688	UNSPK: P487630
Diethylene glycol	24*	23*
Ethylene glycol	68	68
Propylene glycol	77	77

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113390013A	Sample number(s): 6487688 UNSPK: P487630								
m-Terphenyl	97	94	75-125	3	20				
o-Terphenyl	98	96	75-125	2	20				
p-Terphenyl	96	94	75-125	2	20				
Batch number: 113400014A	Sample number(s): 6487688 UNSPK: P487630								
EFH (C12-C14)	0*	0*	49-123	0	20				
EFH (C15-C20)	0*	0*	49-123	0	20				
EFH (C21-C30)	147 (2)	-288 (2)	49-123	6	20				
EFH (C30 - C40)	-4209 (2)	-3930 (2)	49-123	1	20				
EFH (C8-C11)	0*	0*	49-123	0	20				
Batch number: 113391026002A	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Antimony	43*	37*	75-125	12	20	0.115 J	0.0712 U	200* (1)	20
Arsenic	277*	165*	75-125	26*	20	4.22	3.91	7	20
Beryllium	204*	120	75-125	39*	20	0.478	0.465	3 (1)	20
Cadmium	188*	127*	75-125	35*	20	0.230	0.195	16 (1)	20
Chromium	263*	155*	75-125	28*	20	17.9	15.8	12	20
Cobalt	191*	128*	75-125	37*	20	6.73	5.67	17	20
Copper	257*	136*	75-125	39*	20	11.9	9.17	26*	20
Lead	329*	78	75-125	46*	20	10.2	6.14	50*	20
Nickel	256*	145*	75-125	35*	20	12.4	11.1	11	20
Silver	175*	124	75-125	35*	20	0.0492 J	0.0352 J	33* (1)	20
Thallium	202*	136*	75-125	29*	20	0.247	0.195	24* (1)	20
Vanadium	348*	191*	75-125	25*	20	37.8	33.3	13	20
Zinc	477 (2)	214 (2)	75-125	26*	20	69.1	58.2	17	20
Batch number: 113391026002B	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Selenium	131*	131*	75-125	1	20	0.257 J	0.521	68* (1)	20
Batch number: 113391026002C	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Molybdenum	179*	125	75-125	35*	20	0.915	0.649	34*	20
Batch number: 113391026002D	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Barium	550 (2)	130 (2)	75-125	31*	20	102	77.7	27*	20
Batch number: 113395708002	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Aluminum	611 (2)	863 (2)	75-125	3	20	13,400	12,600	6	20
Boron	98	99	84-115	1	20	4.59 J	3.87 J	17 (1)	20
Calcium	287 (2)	386 (2)	75-125	7	20	4,640	5,580	18	20
Iron	-2297 (2)	-1472 (2)	75-125	4	20	20,900	19,500	7	20
Lithium	100	98	82-114	1	20	21.3	20.2	5	20
Magnesium	97 (2)	200 (2)	75-125	4	20	4,860	4,940	2	20
Manganese	-31 (2)	6 (2)	75-125	6	20	308	258	18	20
Phosphorus	128*	118	75-125	2	20	368	382	4	20
Potassium	105	101	75-125	1	20	2,470	2,420	2	20
Sodium	98	98	75-125	1	20	138	136	2 (1)	20
Strontium	103	102	75-115	0	20	19.8	21.1	6	20
Tin	92	89	80-110	2	20	2.55 J	2.40 J	6 (1)	20

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Titanium	168 (2)	265 (2)	75-125	8	20	1,030	1,020	1	20
Zirconium	100	102	81-110	3	20	2.10 J	4.87	79* (1)	20
Batch number: 113395711003 Mercury	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630 106 70 65-135 8 20 0.528 0.478 10 20								
Batch number: 11335495401B 3b Cr VI by EPA 7199	Sample number(s): 6487693 UNSPK: P487411 BKG: P487411 110 59-135 5.0 U 5.0 U 0 (1) 20								
Batch number: 11339102201B 16a Cyanide by 9012B	Sample number(s): 6487688 UNSPK: P487640 BKG: P487640 102 75-125 0.18 U 0.17 U 0 (1) 20								
Batch number: 11341243202A 3a Cr VI by EPA 7199	Sample number(s): 6487688-6487692 UNSPK: P488950 BKG: P488950 108 75-125 0.20 U 0.20 U 0 (1) 20								
Batch number: 11342342201B 7a Perchlorate EPA 314.0	Sample number(s): 6487688-6487692 UNSPK: P487641 BKG: P487641 105 80-120 9.0 U 9.0 U 0 (1) 15								
Batch number: 11348621201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6487688-6487691 UNSPK: P488950 BKG: P488950 98 80-120 0.80 U 1.1 200* (1) 20								
Batch number: 11348621201B 11a Anions by 300.0 - Fluoride	Sample number(s): 6487692 UNSPK: 6487692 BKG: 6487692 91 80-120 2.2 3.5 45* (1) 20								
Batch number: 11346039401B 17a pH by 9045C	Sample number(s): 6487688-6487692 BKG: 6487692 8.35 8.39 0 3								
Batch number: 11343162401B Moisture Content by 160.3	Sample number(s): 6487688-6487692 BKG: P487644 11.6 11.7 0 20								

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 14b 1,4-Dioxane by 8260B SIM
Batch number: E113391AA
Toluene-d8

6487693	100
Blank	101
LCS	100
LCSD	100

Limits: 80-120

Analysis Name: 1b Volatile Organics EPA8260B
Batch number: Y113402AA

Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

6487693	95	99	99	95
Blank	95	98	99	95
LCS	96	101	102	100
LCSD	95	101	101	99

Limits: 86-118 80-120 88-110 86-115

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11337SLC026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487688	90	95	66	81	89	82
6487689	93	100	72	87	94	93
6487690	95	101	62	85	93	89
6487691	93	96	91	84	89	84
6487692	94	98	87	85	90	87
Blank	92	98	94	86	88	86
LCS	91	96	93	88	91	85
MS	90	94	86	84	87	79
MSD	90	93	87	83	88	78

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11339SLD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487689	99	95	107
6487690	95	100	99
6487691	97	89	101
6487692	96	69	98
Blank	108	104	110
LCS	110	99	103
MS	118	107	113
MSD	109	92	109

Limits: 40-130 45-130 45-135

Analysis Name: 21b. NDMA in Water

Batch number: 11340WAA026

N-Nitrosodimethylamine-
d6

6487693	168*
Blank	170*
LCS	137
LCSD	170*

Limits: 50-150

Analysis Name: 5b Semivolatiles by EPA 8270C

Batch number: 11340WAC026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487693	48	29	91	86	87	84
Blank	47	29	90	86	87	83
LCS	58	36	90	87	91	84

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

LCSD	51	32	91	89	90	84
Limits:	20-130	20-120	30-130	40-130	45-130	45-135

Analysis Name: 4b Select SVOC EPA 8270SIM

Batch number: 11340WAG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487693	98	91	99
Blank	93	94	95
LCS	102	101	98
LCSD	101	90	91
Limits:	64-147	68-132	53-129

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12

Batch number: 11340A20A

Trifluorotoluene-F

6487693	97
Blank	96
LCS	116
LCSD	117
Limits:	63-135

Analysis Name: 20b Formaldehyde 8315A

Batch number: 113370002A

Butyraldehyde

6487693	98
Blank	101
LCS	104
LCSD	98
Limits:	45-145

Analysis Name: 13b Herbicides by EPA 8151

Batch number: 113370019A

2,4-Dichlorophenylacetic
acid

6487693	97
Blank	89
LCS	100
LCSD	104
Limits:	35-144

Analysis Name: 12a Pesticides by 8081A

Batch number: 113390023A

Tetrachloro-m-xylene Decachlorobiphenyl

6487688	27*	0*
Blank	58	92
LCS	67	88
MS	37*	144*

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

MSD 18* 153*

Limits: 50-130 20-120

Analysis Name: 15b Energetics by 8330A
Batch number: 113400003A
2-Nitro-m-xylene

6487693 90
Blank 90
LCS 94
LCSD 93

Limits: 50-134

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113400026A
Tetrachloro-m-xylene Decachlorobiphenyl

6487688	79	54
6487689	83	55
6487690	89	95
6487691	87	92
6487692	89	96
Blank	71	82
LCS	92	108
LCSD	91	106
MS	75	84
MSD	91	100

Limits: 53-139 53-142

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 113400037A
2,4-Dichlorophenylacetic acid

6487688 118
Blank 99
LCS 110
MS 138
MSD 124

Limits: 36-156

Analysis Name: 8b PCBs/PCTs by 8082
Batch number: 113400049A
Tetrachloro-m-xylene Decachlorobiphenyl

6487693	90	102
Blank	91	63
LCS	94	82
LCSD	91	75

Limits: 30-150 45-120

Analysis Name: 12b Pesticides by 8081A

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

Batch number: 113400050A

Tetrachloro-m-xylene

Decachlorobiphenyl

6487693	96	104
Blank	97	73
LCS	99	98
LCSD	101	97

Limits: 52-141 40-144

Analysis Name: 18a Alcohols by 8015B

Batch number: 113360017A

Acetone

6487688	87
Blank	95
LCS	94
MS	87
MSD	92

Limits: 42-138

Analysis Name: 9b TPH by EPA 8015B Oil/Diesel

Batch number: 113390010A

Chlorobenzene

Orthoterphenyl

6487693	79	92
Blank	80	87
LCS	78	87
LCSD	67	76

Limits: 28-152 52-131

Analysis Name: 22a Terphenyls by 8015B

Batch number: 113390013A

n-Triacontane-d62

6487688	80
Blank	72
LCS	72
MS	105
MSD	93

Limits: 19-152

Analysis Name: 18b Alcohols by 8015B

Batch number: 113390042A

Acetone

6487693	96
Blank	98
LCS	98
MS	98
MSD	98

Limits: 54-147

*- Outside of specification

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Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 113400014A

	Chlorobenzene	Orthoterphenyl
6487688	84	89
Blank	65	74
LCS	69	81
MS	71	77
MSD	74	84

Limits: 37-125 47-145

Analysis Name: 22b Terphenyls by 8015B
Batch number: 113400019A
n-Triacontane-d62

6487693	71
Blank	75
LCS	74
LCSD	73

Limits: 17-138

Analysis Name: 19b Glycols by 8015B
Batch number: 113400056A
Tetramethylene glycol

6487693	98
Blank	105
LCS	107
MS	109
MSD	120

Limits: 29-157

Analysis Name: 19a Glycols by 8015B
Batch number: 113420018A
Tetramethylene glycol

6487688	89
Blank	98
LCS	98
MS	89
MSD	89

Limits: 29-137

*- Outside of specification

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Sample # 6487688-93

CDM						SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY ANALYTES								SECONDARY ANALYTES								Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 150.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected <u>Also report TetraIn under EPA Method 8270C.</u> Samplers Signatures: _____						*Metals EPA 60106/8206/87471A	**Fluoride EPA 300.0	**VOC's EPA 8270C & PAHs 8270 SIM	**PCBw/PCBs EPA 8062	**Dioxin/Furan EPA 1613B	**Pesticides EPA 314.0	**Herbicide EPA 7169	**PH EPA 8045C/8040B	Pesticidate Confirmation by EPA 6850 (10%)	**Pesticides EPA 8081A (surface soil only)	**Herbicides EPA 8151 (surface soil only)	**TPH-EPI EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1025C	**Enthalpic EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																							
DUP17-SA6-QC-120111	12.01.11	0825	SOIL	NONE	1-SS Sleeve		X	X																				
DUP17-SA8-QC-120111	12.01.11	0825	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X		X	X	X			X	X	X	X					
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-SS Sleeve			X	X																			
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X															
SL-023-SA8S-SB-8.0-10.0	12.01.11	1155	SOIL	NONE	1-SS Sleeve			X	X																			
SL-023-SA8S-SB-8.0-10.0	12.01.11	1155	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X															
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-SS Sleeve			X	X																			
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X															
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-SS Sleeve			X	X																			
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X															
Relinquished by: (Signature) _____		Date/Time 12/01/2011 / 1630	Received for Laboratory by: (Signature) _____																				Laboratory: Lancaster Laboratories, Inc.					
Received by: (Signature) _____		Date/Time	Airbill No.(s) 8767 9857 5007, 5029	Shirlette Lehman																		12/2/11 09						

acct#13013 Cp#1279187

Sample# 6487688-93

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES										ENCOREs		SECONDARY ANALYTES										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetra in under EPA Method 8270C.							*Metals EPA 8010/8220/821/471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCBs EPA 8082	*Organic/Inorganic EPA 1631B	*Pesticides EPA 314.0	*Herbicides EPA 7199	*H EPA 8060/8090/8098	Pesticides Confirmation by EPA 8850 (10%)	*Pesticides EPA 8061A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	VOCs/EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	*TPH-EPH EPA 8015B Mod.	*Nitrate EPA 300.0	*Formaldehyde EPA 8315A	*Tr-NDMA EPA 1625C	*Ehorgelox EPA 8330A	*Cyanide EPA 8012B	*Tetraphenyls EPA 8015B	*Glycols EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																								
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	12-1 liter ambers			X	X	X					X	X			X			X	X		X				
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-500 mL poly		X				X	X	X																
EB-SA6-SB-120111	12.01.11	1400	WATER	HNO3	1-500 mL poly	X																							
EB-SA6-SB-120111	12.01.11	1400	WATER	NaOH	1-500 mL poly																		X						
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-250 mL glass															X									
EB-SA6-SB-120111	12.01.11	1400	WATER	HCL	11-40 mL vials											X	X	X									X		
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	4-40 mL vials														X						X				
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:			
		12/01/2011 / 1630																								Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s)																									
				8767 9857 5007, 5029																						12/2/11 0915			

Suzette Lehman

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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