

SOIL VALIDATION REPORTS



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 180809

Prepared by

MECX, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap
 Contract Task Order: 1261.500D.08.001
 Sample Delivery Group: 180809
 Project Manager: Dixie Hambrick
 Matrix: Soil
 QC Level: V
 No. of Samples: 1
 No. of Reanalyses/Dilutions: 0
 Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample name	Matrix Type	Collection Date	Method
FSBS0067S01S P	180809001	N/A	Soil	13-Feb-07	6010B, 6020, 7471A, 8082, 9045C

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COC was appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered directly from the field to the laboratory, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: Patti Meeks

Date Reviewed: March 24, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 6010B, 6020, 7470A/7471A*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no applicable detects.
- Interference Check Samples: Not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: There were no detects in the field blank, BLQW0018F01 (IQB1202), or the equipment rinsate, ESQW0001E01 (IQB1859).
- Field Duplicates: There were no field duplicate samples identified for this SDG.

B. EPA METHOD 8082—PCBs

Reviewed By: L. Calvin

Date Reviewed: March 26, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0)*, *EPA Method 8082*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The soil sample was extracted within 14 days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample of this SDG.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Field blank BLQW0018F01 (IQB1202) and equipment rinsate ESQW0002E01 (IBQ2570) had no target compound detects above the MDL.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Review is not applicable at a Level V validation.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.

C. EPA METHOD 9045C—General Minerals

Reviewed By: Patti Meeks

Date Reviewed: March 24, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Method 9045C*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, 24 hours from preparation for pH, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Not applicable to this analysis.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this analysis.
- Sample Result Verification: Review is not applicable at a Level V validation.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Not applicable to this analysis.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 180809

CONTRACT: SSFL00107

METHOD TYPE: SW846

SAMPLE ID: 180809001

BASIS: Dry Weight

DATE COLLECTED 13-FEB-07

CLIENT ID: FSBS0067S01SP

LEVEL: Low

DATE RECEIVED 15-FEB-07

MATRIX: SOIL

%SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15400	mg/kg		7.74	22.8	20	1	P	HSC	02/23/07 18:09	022307-9	610507
7440-36-0	Antimony U	0.112	mg/kg	U	0.112	.45	1	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-38-2	Arsenic	2.8	mg/kg		0.337	1.12	1	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-39-3	Barium	109	mg/kg		0.112	.45	0.5	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-41-7	Beryllium	0.550	mg/kg		0.112	.562	0.3	10	MS	PRB	02/26/07 12:06	070226-6	610554
7440-42-8	Boron	3.8	mg/kg	J	1.14	5.69	5	1	P	HSC	02/23/07 18:09	022307-9	610507
7440-43-9	Cadmium	0.240	mg/kg		0.0225	.225	0.5	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-47-3	Chromium	17.2	mg/kg		0.225	.675	1	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-48-4	Cobalt	5.2	mg/kg		0.0225	.225	0.5	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-50-8	Copper	11.1	mg/kg		0.225	1.12	1	10	MS	PRB	02/26/07 12:06	070226-6	610554
7439-92-1	Lead	6.3	mg/kg		0.112	.45	0.5	2	MS	PRB	02/24/07 05:50	070223-5	610554
7439-93-2	Lithium	23	mg/kg		2.25	11.2	6.3	10	MS	BAJ	02/27/07 13:06	070227-10	610554
7439-97-6	Mercury	0.0056	mg/kg	J	0.00261	.0105	0.2	1	AV	ETL	02/21/07 09:52	022107S1-2	610744
7439-98-7	Molybdenum	0.520	mg/kg		0.0225	.112	1	2	MS	PRB	02/23/07 15:33	070223-4	610554
7440-02-0	Nickel	11.2	mg/kg		0.112	.45	1	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-09-7	Potassium	3080	mg/kg		18	67.5	50	2	MS	PRB	02/24/07 05:50	070223-5	610554
7782-49-2	Selenium U	0.562	mg/kg	U	0.562	1.12	1	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-22-4	Silver	0.047	mg/kg	J	0.045	.225	0.5	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-23-5	Sodium	87.2	mg/kg		18	56.2	50	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-28-0	Thallium	0.280	mg/kg		0.09	.225	0.5	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-62-2	Vanadium	30.2	mg/kg		2.25	11.2	6	10	MS	PRB	02/27/07 15:12	070227-8	610554
7440-66-6	Zinc	60.1	mg/kg		0.45	2.25	10	2	MS	PRB	02/24/07 05:50	070223-5	610554
7440-67-7	Zirconium	2.6	mg/kg		0.112	.45	25	2	MS	PRB	02/24/07 05:50	070223-5	610554

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
610507	610506	SW846 3050B	0.503	g	50	mL	02/22/07	MJH
610554	610553	SW846 3050B	0.509	g	50	mL	02/22/07	MJH
610744	610743	SW846 7471A Prep	0.657	g	30	mL	02/20/07	MJH
612495	612494	SW846 3050B	0.521	g	50	mL	02/26/07	JWJ

LEVEL V

PCB
Certificate of Analysis
Sample Summary

SDG Number: 180809
 Lab Sample ID: 180809001

Client: SSFL001
 Date Collected: 02/13/2007 08:40
 Date Received: 02/15/2007 10:00

Project: SSFL00107
 Matrix: SOIL
 %Moisture: 12.6
 Prep Basis: Dry Weight
 SOP Ref: GL-OA-E-040
 Instrument: ECDIA.I
 Dilution: 1
 Prep SOP Ref: GL-OA-E-010
 Final Volume: 1 mL

Client ID: FSBS0067S015P
 Batch ID: 610432
 Run Date: 02/16/2007 12:20
 Data File: Dual Column
 Prep Batch: 610431
 Prep Date: 02/15/2007 20:01

Method: SW846 8082
 Analyst: RAW2
 Inj. Vol: 1 uL
 Prep Method: SW846 3550B
 Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File
12674-11-2	Aroclor-1016	U	3.82	ug/kg	1.27	3.82	50.0	025f2501.d
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	50.0	025f2501.d
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	50.0	025f2501.d
53469-21-9	Aroclor-1242	U	3.82	ug/kg	1.27	3.82	50.0	025f2501.d
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	50.0	025f2501.d
11097-69-1	Aroclor-1254	U	3.82	ug/kg	1.27	3.82	50.0	025f2501.d
11096-82-5	Aroclor-1260	U	3.82	ug/kg	1.27	3.82	50.0	025f2501.d

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	Data File
4cmx	5.60	7.63	ug/kg	73	(41%-112%)	025f2501.d
Decachlorobiphenyl	5.57	7.63	ug/kg	73	(40%-109%)	025f2501.d

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: February 22, 2007

Contact: Ms. Elizabeth Wessling
Project: Task Order 001 - DOE SSFL Sample Split -
Group 8

Client Sample ID: FSBS0067S01SP
Sample ID: 180809001
Matrix: SOIL
Collect Date: 13-FEB-07 08:40
Receive Date: 15-FEB-07
Collector: Client
Moisture: 12.6%

Project: SSFL00107
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
SW9045C pH Federal pH at Temp 20.9C	H	6.95	0.010	0.100	SU	1	AXC2 02/15/07	1925	610384	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 181517

Prepared by

MEC^x, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap
 Contract Task Order: 1261.500D.08.001
 Sample Delivery Group: 181517
 Project Manager: Dixie Hambrick
 Matrix: water
 QC Level: V
 No. of Samples: 3
 No. of Reanalyses/Dilutions: 0
 Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method
FSBS0009S01SP	181517003	N/A	Soil	2/22/2007 12:37:00 PM	314.0-DI WET
FSBS0018S01SP	181517001	N/A	Soil	2/13/2007 1:21:00 PM	314.0-DI WET
FSBS0036S01SP	181517002	N/A	Soil	2/15/2007 1:59:00 PM	314.0-DI WET
BLANK	181517004	N/A	Water	2/27/2007 12:00:00 PM	314.0-DI WET

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. As the samples were couriered directly from the field to TestAmerica, custody seals were not required. TestAmerica prepared the leachate samples and sent these aliquots to GEL via FedEx. According to the case narrative for this SDG, the samples were received at GEL intact and on ice. The COCs were appropriately signed and dated by field and/or laboratory personnel.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 314.0—Perchlorate

Reviewed By: P. Meeks

Date Reviewed: April 3, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-20, Rev. 0)*, *EPA Method 314.0*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, 28 days, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPD were within the method-established QC limits of 85-115% and $\leq 15\%$.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on FSBS0018S01SP. The RPD was within the method-established control limit of $\leq 15\%$.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.
- Sample Result Verification: The sample results reported on the sample result summaries were verified against the raw data. No transcription errors or calculation errors were noted. A confirmation spike was performed on FSBS0018S01SP and the recovery was acceptable. A confirmation spike was performed on FSBS0036S01SP and the recovery was above the control limit at 149%; however, as perchlorate was not detected in the sample, no qualifications were required. No confirmation spike was performed for FSBS0009S01SP; therefore, perchlorate detected in the sample was qualified as estimated, "J." Perchlorate was detected below the reporting limit in FSBS0009S01SP; therefore, perchlorate detected in the sample was qualified as estimated, "J." Due to matrix interference, FSBS0036S01SP was reported from a 20 \times dilution. Reported nondetects are valid to the reporting limit.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Perchlorate was not detected in field blank BLQW0018F01 (IQB1202) or equipment rinsate FSQW0002E01 (IQB2570).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: March 19, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 001 - DOE SSFL Sample Split -
Group 8**

Client Sample ID: FSBS0018S01SP
Sample ID: 181517001
Matrix: Water
Collect Date: 13-FEB-07 13:21
Receive Date: 28-FEB-07
Collector: Client

Project: SSFL00107
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
<i>EPA 314.0 Perchlorate by IC</i>										
Perchlorate	U	4.00	1.00	4.00	ug/L	1	MAR103/02/07	0050	613554	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: March 19, 2007

Contact: Ms. Elizabeth Wessling
Project: Task Order 001 - DOE SSFL Sample Split -
Group 8

Client Sample ID: FSBS0036S01SP
Sample ID: 181517002
Matrix: Water
Collect Date: 15-FEB-07 13:59
Receive Date: 28-FEB-07
Collector: Client

Project: SSFL00107
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
<i>EPA 314.0 Perchlorate by IC</i>										
Perchlorate	U	80.0	20.0	80.0	ug/L	20	MAR103/15/07	0010	613554	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: March 19, 2007

Contact: Ms. Elizabeth Wessling
Project: Task Order 001 - DOE SSFL Sample Split -
Group 8

Client Sample ID: FSBS0009S01SP
Sample ID: 181517003
Matrix: Water
Collect Date: 22-FEB-07 12:37
Receive Date: 28-FEB-07
Collector: Client

Project: SSFL00107
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
<i>EPA 314.0 Perchlorate by IC</i>										
5/10 Perchlorate	J/ *III	2.82	1.00	4.00	ug/L	1	MAR103/14/07	2325	613554	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

mm 4/3/07

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: March 19, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 001 - DOE SSFL Sample Split -
Group 8**

Client Sample ID: Blank
Sample ID: 181517004
Matrix: Water
Collect Date: 27-FEB-07 12:00
Receive Date: 28-FEB-07
Collector: Client

Project: SSFL00107
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
<i>EPA 314.0 Perchlorate by IC</i>										
U Perchlorate	U	4.00	1.00	4.00	ug/L	1	MAR103/15/07	1156	613554	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 183627

Prepared by

MEC^X, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap
 Contract Task Order: 1261.500D.08
 Sample Delivery Group: 183627
 Project Manager: Dixie Hambrick
 Matrix: Soil
 QC Level: V
 No. of Samples: 19
 No. of Reanalyses/Dilutions: 0
 Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample name	Matrix Type	Collection Date	Method
BHBS0007D01	183627001	G341-280-1	soil	4/2/07	1613
BHBS0007S01	183627002	G341-280-2	soil	4/2/07	1613
BHBS0008S01	183627003	G341-280-3	soil	4/2/07	1613
BHBS0006S01	183627004	G341-280-4	soil	4/2/07	1613
BLBS0040S01	183627005	na	soil	4/2/07	6010B, 9045C
BLBS0048S01	183627006	na	soil	4/2/07	6010B, 9045C
BLBS0047S01	183627007	na	soil	4/2/07	6010B, 9045C
BLBS0041S01	183627008	na	soil	4/2/07	6010B, 9045C
BLBS0039S01	183627009	na	soil	4/2/07	6010B, 9045C
FSBS0079S01	183627010	G341-280-5	soil	4/2/07	1613
FSBS0081S01	183627012	na	soil	4/2/07	6010B, 9045C
FSBS0080S01	183627013	na	soil	4/2/07	6010B, 9045C
FSBS0072D01	183627014	na	soil	4/2/07	6010B, 9045C
FSBS0072S01	183627015	na	soil	4/2/07	6010B, 9045C
FSQW0003F01	183629001	G341-280-7	water	4/2/07	1613, 6010B, 6020, 314.0
FSQW0003E01	183629002	G341-280-8	water	4/2/07	1613, 6010B, 6020, 314.0
FSBS0021AS01	183629003	na	soil	4/2/07	314.0
FSBS0026AD01	183629004	na	soil	4/2/07	314.0
FSBS0026AS01	183629005	na	soil	4/2/07	314.0

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at both laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. According to the COC and case narrative for this SDG, the dioxin analysis for sample FSBS0079S02 was on HOLD and was not included in this report. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered directly from the field to the laboratory, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present. Not applicable.	
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight

Date Reviewed: April 24, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0)*, *USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02)*.

- Holding Times: Extraction and analytical holding times were met. The samples were extracted and analyzed within one year of collection.
- Instrument Performance: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: There were several detects above the EDL in the associated method blanks. Any detects reported at less than five times the concentrations reported in the method blank were qualified as estimated nondetects, "UJ," at the levels of contamination in the samples of this SDG. As a portion of the results for total TCDFs and total PeCDF in all samples and total HpCDF in sample FSBS0079S01 included method blank contamination, these detects were qualified as estimated, "J."
- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Sample FSQW0003F01 was the field blank and sample FSQW0003E01 was the equipment rinsate identified for this SDG. Total TCDFs was reported in both the field blank and the equipment rinsate and 1,2,3,4,7,8-HxCDF and 1,2,3,6,7,8-HxCDF were reported in the equipment rinsate only. Any detects reported at less than five times the concentrations reported in the field QC samples were qualified as estimated "J," in the site samples of this SDG.
 - Field Duplicates: Samples BHBS0007D01 and BHBS0007S01 were the field duplicate pair identified for this SDG. There were 13 common detects and all RPDs exceeded 100%.
- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result

summaries. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. The laboratory calculated and reported compound-specific detection limits. OCDD was reported at a concentration above the upper calibration level in sample BHBS0007D01; therefore, this detect for OCDD was qualified as estimated, "J." Quantitative interference was present in the results for total PeCDDs and total PeCDFs in several of the samples in this SDG. These results were denoted with a "Q," by the laboratory. The results for total PeCDDs and total PeCDFs were qualified as estimated, "J," for detects and "UJ," for nondetects in the samples of this SDG. Any detects below the laboratory lower calibration level were qualified as estimated, "J." Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHOD 6010B—Metals

Reviewed By: P. Meeks

Date Reviewed: April 24, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Method 6010B*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, six months for ICP, was met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.
- Serial Dilution: No serial dilution analyses were performed.

- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Aluminum was not detected in field blank FSQW0003F01. Sodium was detected in the field blank but not at sufficient concentration to qualify the site samples. The samples in this SDG had no identified equipment rinsate sample.
 - Field Duplicates: BLBS0072S01 and BLBS0072D01 were identified as field duplicate samples. Both detects were in common and both RPDs were $\leq 100\%$.

C. EPA METHOD 314.0—Perchlorate

Reviewed By: P. Meeks

Date Reviewed: April 24, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Metals (DVP-20, Rev. 0)*, *EPA Method 314.0*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, 28 days, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: The recovery was within the method-established QC limits of 85-115%.
- Laboratory Duplicates: Laboratory duplicate analyses were performed for FSBS0026AD01 and the RPD was within the method-established control limits of $\leq 15\%$. Laboratory duplicate analyses were also performed on FSBS0003F01; however, as the sample was identified as a field QC sample, the result was not assessed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed.

- **Sample Result Verification:** The sample results reported on the Form Is were verified against the raw data. No transcription errors or calculation errors were noted. Reported nondetects are valid to the reporting limit.

A confirmation spike was performed for FSBS0026AD01. The recovery was within the method-established control limits of 80-120%. A confirmation spike was also performed for FSBS0003F01; however, as the sample was identified as a field QC sample, the result was not assessed.

- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - **Field Blanks and Equipment Rinsates:** Perchlorate was not detected in field blank FSBS0003F01 or equipment rinsate FSBS0003E01.
 - **Field Duplicates:** Samples FSBS0026AS01 and FSBS0026AD01 were identified as field duplicates. Perchlorate was not detected in either sample.

D. EPA METHOD 9045C—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 24, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Method 9045C*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- **Holding Times:** the analytical holding time, 24 hours from preparation for pH, was met.
- **Calibration:** Review is not applicable at a Level V validation.
- **Blanks:** Not applicable to this analysis.
- **Blank Spikes and Laboratory Control Samples:** Not applicable to this analysis.
- **Laboratory Duplicates:** Laboratory duplicate analyses were performed on BLBS0040S01 and the RPD was within the laboratory-established control limit of ≤5%.
- **Matrix Spike/Matrix Spike Duplicate:** Not applicable to this analysis.
- **Sample Result Verification:** Review is not applicable at a Level V validation.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based

on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: Not applicable to this analysis.
- Field Duplicates: Samples BLBS0072S01 and BLBS0072D01 were identified as field duplicate samples. The RPD was $\leq 100\%$.

Method 1613--Boeing
183627001 B4B5007 D01 *
 General Engineering Labs KS

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.152	0.844			
1,2,3,7,8-PeCDD	1.48	0.149	4.22	33:53	1.4	A
1,2,3,4,7,8-HxCDD	3.23	0.170	4.22	36:25	1.22	A
1,2,3,6,7,8-HxCDD	19.3	0.171	4.22	36:31	1.25	
1,2,3,7,8,9-HxCDD	11.9	0.170	4.22	36:45	1.22	
1,2,3,4,6,7,8-HpCDD	1010	0.420	4.22	39:44	1.04	
OCDD	5810	0.221	8.44	43:52	0.89	E
2,3,7,8-TCDF	0.772	0.149	0.844	30:05	0.74	A
1,2,3,7,8-PeCDF	0.201	0.0795	4.22	33:06	1.53	A
2,3,4,7,8-PeCDF	0.481	0.0839	4.22	33:42	1.59	A
1,2,3,4,7,8-HxCDF	0.402	0.155	4.22	35:44	1.24	A
1,2,3,6,7,8-HxCDF	0.296	0.145	4.22	35:49	1.18	A
2,3,4,6,7,8-HxCDF	0.463	0.157	4.22	36:18	1.30	A
1,2,3,7,8,9-HxCDF	ND	0.205	4.22			
1,2,3,4,6,7,8-HpCDF	6.12	0.135	4.22	38:31	1.07	
1,2,3,4,7,8,9-HpCDF	0.475	0.185	4.22	40:22	1.19	A
OCDF	13.6	0.200	8.44	44:08	0.9	
Total TCDDs	1.40	0.152	0.844			
Total PeCDDs	12.0	0.149	4.22			Q
Total HxCDDs	164	0.170	4.22			
Total HpCDDs	1660	0.420	4.22			
Total TCDFs	2.75	0.149	0.844			
Total PeCDFs	5.58	0.0816	4.22			Q
Total HxCDFs	10.1	0.163	4.22			
Total HpCDFs	24.9	0.158	4.22			
WHO-2005 TEQ (ND=0)	17.2					
WHO-2005 TEQ (ND=1/2)	17.4					

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<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	1891264	Report Basis:	Dry Weight
Sample ID:	183627001	Matrix:	Soil
		Weight / Volume:	13.04 Grams
		Solids / Lipids:	90.8 %
		Original pH :	NA
		Batch ID:	WG14197
<u>Laboratory Information</u>		Filename:	a14apr07a-5
Project ID:	G341-280	Retchk:	a14apr07a-1
Sample ID:	G341-280-1B	Begin ConCal:	a14apr07a-1
Collection Date/Time:	02-Apr-07 09:40	Initial Cal:	m1613-071006e
Receipt Date:	04-Apr-07 10:15		
Extraction Date:	09-Apr-07		
Analysis Date:	14-Apr-07 15:13		

Level IV

Method 1613--Boeing
183627002 BHBS0057501
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.165	0.813			
1,2,3,7,8-PeCDD	0.194	0.142	4.07	33:53	1.68	A
1,2,3,4,7,8-HxCDD	ND	0.240	4.07			
1,2,3,6,7,8-HxCDD	2.70	0.235	4.07	36:31	1.24	A
1,2,3,7,8,9-HxCDD	1.35	0.236	4.07	36:45	1.36	A
1,2,3,4,6,7,8-HpCDD	206	0.315	4.07	39:44	1.03	
OCDD	1380	0.346	8.13	43:51	0.89	
2,3,7,8-TCDF	0.608	0.149	0.813	30:05	0.73	A
1,2,3,7,8-PeCDF	0.156	0.0917	4.07	33:06	1.46	A
2,3,4,7,8-PeCDF	0.158	0.0852	4.07	33:42	1.75	A
1,2,3,4,7,8-HxCDF	ND	0.111	4.07			
1,2,3,6,7,8-HxCDF	ND	0.104	4.07			
2,3,4,6,7,8-HxCDF	ND	0.118	4.07			
1,2,3,7,8,9-HxCDF	ND	0.151	4.07			
1,2,3,4,6,7,8-HpCDF	1.11	0.159	4.07	38:31	0.91	A
1,2,3,4,7,8,9-HpCDF	ND	0.229	4.07			
OCDF	4.16	0.261	8.13	44:08	0.88	A
Total TCDDs	ND	0.165	0.813			
Total PeCDDs	0.826	0.155	4.07			AQ
Total HxCDDs	18.2	0.237	4.07			
Total HpCDDs	317	0.315	4.07			
Total TCDFs	1.03	0.149	0.813			
Total PeCDFs	0.888	0.0885	4.07			AQ
Total HxCDFs	1.01	0.119	4.07			A
Total HpCDFs	4.28	0.190	4.07			
WHO-2005 TEQ (ND=0)	3.20					
WHO-2005 TEQ (ND=1/2)	3.44					

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<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	1891264	Report Basis:	Dry Weight
Sample ID:	183627002	Matrix:	Soil
		Weight / Volume:	13.45 Grams
		Solids / Lipids:	91.4 %
		Original pH :	NA
		Batch ID:	WG14197
<u>Laboratory Information</u>		Filename:	a14apr07a-6
Project ID:	G341-280	Retchk:	a14apr07a-1
Sample ID:	G341-280-2B	Begin ConCal:	a14apr07a-1
Collection Date/Time:	02-Apr-07 09:40	Initial Cal:	m1613-071006e
Receipt Date:	04-Apr-07 10:15		
Extraction Date:	09-Apr-07		
Analysis Date:	14-Apr-07 16:01		

Level II

Method 1613-Boeing
183627003 B VBS 0008501
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.179	0.823			
1,2,3,7,8-PeCDD	ND	0.118	4.11			
1,2,3,4,7,8-HxCDD	ND	0.139	4.11			
1,2,3,6,7,8-HxCDD	0.520	0.141	4.11	36:30	1.35	A
1,2,3,7,8,9-HxCDD	0.630	0.139	4.11	36:45	1.33	A
1,2,3,4,6,7,8-HpCDD	5.84	0.251	4.11	39:44	1.03	
OCDD	38.6	0.348	8.23	43:51	0.90	
2,3,7,8-TCDF	0.676	0.169	0.823	30:05	0.77	A
1,2,3,7,8-PeCDF	0.216	0.0749	4.11	33:06	1.48	A
2,3,4,7,8-PeCDF	0.181	0.0757	4.11	33:42	1.47	A
1,2,3,4,7,8-HxCDF	ND	0.0963	4.11			
1,2,3,6,7,8-HxCDF	ND	0.0938	4.11			
2,3,4,6,7,8-HxCDF	ND	0.100	4.11			
1,2,3,7,8,9-HxCDF	0.571	0.136	4.11	37:03	1.23	A
1,2,3,4,6,7,8-HpCDF	0.670	0.149	4.11	38:31	1.03	A
1,2,3,4,7,8,9-HpCDF	ND	0.213	4.11			
OCDF	2.16	0.301	8.23	44:08	0.96	A
Total TCDDs	ND	0.179	0.823			
Total PeCDDs	0.379	0.118	4.11			AQ
Total HxCDDs	3.04	0.140	4.11			A
Total HpCDDs	12.3	0.251	4.11			
Total TCDFs	1.41	0.169	0.823			
Total PeCDFs	1.29	0.0752	4.11			AQ
Total HxCDFs	1.09	0.105	4.11			A
Total HpCDFs	1.66	0.178	4.11			A
WHO-2005 TEQ (ND=0)	0.378					
WHO-2005 TEQ (ND=1/2)	0.720					

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<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	1891264	Report Basis:	Dry Weight
Sample ID:	183627003	Matrix:	Soil
		Weight / Volume:	13.40 Grams
		Solids / Lipids:	90.7 %
		Original pH :	NA
		Batch ID:	WG14197
<u>Laboratory Information</u>			
Project ID:	G341-280	Filename:	a14apr07a-7
Sample ID:	G341-280-3B	Retchk:	a14apr07a-1
Collection Date/Time:	02-Apr-07 10:10	Begin ConCal:	a14apr07a-1
Receipt Date:	04-Apr-07 10:15		
Extraction Date:	09-Apr-07		
Analysis Date:	14-Apr-07 16:48	Initial Cal:	m1613-071006e

Level I

Method 1613--Boeing
183629001 FSQW0003 FOI
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (ng/L)	EDL (ng/L)	Adj. RL (ng/L)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00386	0.00960			
1,2,3,7,8-PeCDD	ND	0.00337	0.0480			
1,2,3,4,7,8-HxCDD	ND	0.00556	0.0480			
1,2,3,6,7,8-HxCDD	ND	0.00549	0.0480			
1,2,3,7,8,9-HxCDD	ND	0.00544	0.0480			
1,2,3,4,6,7,8-HpCDD	ND	0.0108	0.0480			
OCDD	ND	0.0237	0.0960			
2,3,7,8-TCDF	ND	0.00331	0.00960			
1,2,3,7,8-PeCDF	ND	0.00226	0.0480			
2,3,4,7,8-PeCDF	ND	0.00220	0.0480			
1,2,3,4,7,8-HxCDF	ND	0.00323	0.0480			
1,2,3,6,7,8-HxCDF	ND	0.00314	0.0480			
2,3,4,6,7,8-HxCDF	ND	0.00336	0.0480			
1,2,3,7,8,9-HxCDF	ND	0.00529	0.0480			
1,2,3,4,6,7,8-HpCDF	ND	0.00495	0.0480			
1,2,3,4,7,8,9-HpCDF	ND	0.00840	0.0480			
OCDF	ND	0.0222	0.0960			
Total TCDDs	ND	0.00386	0.00960			
Total PeCDDs	ND	0.00337	0.0480			
Total HxCDDs	ND	0.00547	0.0480			
Total HpCDDs	ND	0.0108	0.0480			
Total TCDFs	0.00397	0.00331	0.00960			A
Total PeCDFs	ND	0.00223	0.0480			
Total HxCDFs	ND	0.00367	0.0480			
Total HpCDFs	ND	0.00642	0.0480			
WHO-2005 TEQ (ND=0)	0.000					
WHO-2005 TEQ (ND=1/2)	0.0117					

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<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	1891264	Matrix:	Water
Sample ID:	183629001	Weight / Volume:	1042 mL
		Solids / Lipids:	NA %
		Original pH :	5
		Batch ID:	WG14192
<u>Laboratory Information</u>		Filename:	a06apr07a_2-8
Project ID:	G341-280	Retchk:	a06apr07a-15
Sample ID:	G341-280-7C	Begin ConCal:	a06apr07a-15
Collection Date/Time:	02-Apr-07 15:02	Initial Cal:	m1613-071006e
Receipt Date:	04-Apr-07 10:15		
Extraction Date:	05-Apr-07		
Analysis Date:	7-Apr-07 6:56		

Level V

Method 1613--Boeing
183629002 FSQW0003 E01
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (ng/L)	EDL (ng/L)	Adj. RL (ng/L)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00415	0.00956			
1,2,3,7,8-PeCDD	ND	0.00351	0.0478			
1,2,3,4,7,8-HxCDD	ND	0.00567	0.0478			
1,2,3,6,7,8-HxCDD	ND	0.00584	0.0478			
1,2,3,7,8,9-HxCDD	ND	0.00568	0.0478			
1,2,3,4,6,7,8-HpCDD	ND	0.0105	0.0478			
OCDD	ND	0.0269	0.0956			
2,3,7,8-TCDF	0.00616	0.00375	0.00956	30:35	0.78	A
1,2,3,7,8-PeCDF	0.00436	0.00249	0.0478	33:19	1.32	A
2,3,4,7,8-PeCDF	0.00380	0.00237	0.0478	33:56	1.36	A
1,2,3,4,7,8-HxCDF	0.00340	0.00319	0.0478	36:01	1.34	A
1,2,3,6,7,8-HxCDF	0.00312	0.00298	0.0478	36:06	1.22	A
2,3,4,6,7,8-HxCDF	ND	0.00309	0.0478			
1,2,3,7,8,9-HxCDF	ND	0.00511	0.0478			
1,2,3,4,6,7,8-HpCDF	ND	0.00548	0.0478			
1,2,3,4,7,8,9-HpCDF	ND	0.00962	0.0478			
OCDF	ND	0.0236	0.0956			
Total TCDDs	ND	0.00415	0.00956			
Total PeCDDs	ND	0.00351	0.0478			
Total HxCDDs	ND	0.00571	0.0478			
Total HpCDDs	ND	0.0105	0.0478			
Total TCDFs	0.0112	0.00375	0.00956			
Total PeCDFs	0.00816	0.00243	0.0478			A
Total HxCDFs	ND	0.00350	0.0478			
Total HpCDFs	ND	0.00724	0.0478			
WHO-2005 TEQ (ND=0)	0.00254					
WHO-2005 TEQ (ND=1/2)	0.0130					

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<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	1891264	Matrix:	Water
Sample ID:	183629002	Weight / Volume:	1046 mL
		Solids / Lipids:	NA %
		Original pH :	5
		Batch ID:	WG14192
<u>Laboratory Information</u>			
Project ID:	G341-280	Filename:	a06apr07a_2-9
Sample ID:	G341-280-8B	Retchk:	a06apr07a-15
Collection Date/Time:	02-Apr-07 15:09	Begin ConCal:	a06apr07a-15
Receipt Date:	04-Apr-07 10:15		
Extraction Date:	05-Apr-07		
Analysis Date:	7-Apr-07 7:43	Initial Cal:	m1613-071006e

Level IV

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627005

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: BLBS0040S01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 94.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-23-5	Sodium	73.8	mg/kg		4.54	15.1	50	1	P	HSC	04/10/07 09:34	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.524	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627006

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: BLBS0048S01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-23-5	Sodium	91.4	mg/kg		4.59	15.3	50	1	P	HSC	04/10/07 09:56	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.509	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627007

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: BLBS0047S01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 93.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-23-5	Sodium	123	mg/kg		4.7	15.7	50	1	P	HSC	04/10/07 10:03	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.513	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627008

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: BLBS0041S01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 91.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-23-5	Sodium	93	mg/kg		4.93	16.4	50	1	P	HSC	04/10/07 10:10	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.5	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627009

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: BLBS0039S01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 96.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-23-5	Sodium	84.9	mg/kg		4.6	15.3	50	1	P	HSC	04/10/07 10:17	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.507	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627012

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: FSBS0081S01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 91.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-23-5	Sodium	191	mg/kg		4.85	16.2	50	1	P	HSC	04/10/07 10:24	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.506	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627013

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: FSBS0080S01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-23-5	Sodium	99.3	mg/kg		5.25	17.5	50	1	P	HSC	04/10/07 10:31	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.513	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627014

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: FSBS0072D01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	23400	mg/kg		7.03	20.7	20	1	P	HSC	04/10/07 10:38	041007A-1	622907
7440-23-5	Sodium	138	mg/kg		4.65	15.5	50	1	P	HSC	04/10/07 10:38	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.525	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183627015

BASIS: Dry Weight

DATE COLLECTED 02-APR-07

CLIENT ID: FSBS0072S01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: SOIL

%SOLIDS: 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	26900	mg/kg		7.4	21.8	20	1	P	HSC	04/10/07 10:45	041007A-1	622907
7440-23-5	Sodium	319	mg/kg		4.9	16.3	50	1	P	HSC	04/10/07 10:45	041007A-1	622907

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622907	622905	SW846 3050B	0.512	g	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627W

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183629001

BASIS: As Received

DATE COLLECTED 02-APR-07

CLIENT ID: FSQW0003F01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: WATER

%SOLIDS:

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum U	0.068	mg/L	U	0.068	.2	0.05	1	P	HSC	04/10/07 00:46	040907-1	622897
7440-38-2	Arsenic ↓	1.5	ug/L	U	1.5	5	1	1	MS	RMJ	04/06/07 04:54	070405-3	622885
7440-23-5	Sodium	0.048	mg/L	J	0.045	.15	0.5	1	P	HSC	04/10/07 19:22	041007-2	622897

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622885	622883	SW846 3005A	50	mL	50	mL	04/05/07	KXW1
622897	622895	SW846 3005A	50	mL	50	mL	04/06/07	KXW1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183627W

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183629002

BASIS: As Received

DATE COLLECTED 02-APR-07

CLIENT ID: FSQW0003E01

LEVEL: Low

DATE RECEIVED 04-APR-07

MATRIX: WATER

%SOLIDS:

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum U	0.068	mg/L	U	0.068	.2	0.05	1	P	HSC	04/10/07 00:52	040907-1	622897
7440-38-2	Arsenic ↓	1.5	ug/L	U	1.5	5	1	1	MS	RMJ	04/06/07 04:59	070405-3	622885
7440-23-5	Sodium ↓	0.045	mg/L	U	0.045	.15	0.5	1	P	HSC	04/10/07 19:28	041007-2	622897

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
622885	622883	SW846 3005A	50	mL	50	mL	04/05/07	KXW1
622897	622895	SW846 3005A	50	mL	50	mL	04/06/07	KXW1

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSOW0003F01
Sample ID: 183629001
Matrix: Water
Collect Date: 02-APR-07 15:02
Receive Date: 04-APR-07
Collector: Client

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
EPA 314.0 Perchlorate by IC										
Perchlorate	U	4.00	1.38	4.00	ug/L	1	MAR104/11/07	0015	623347	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSQW0003E01
Sample ID: 183629002
Matrix: Water
Collect Date: 02-APR-07 15:09
Receive Date: 04-APR-07
Collector: Client
Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
EPA 314.0 Perchlorate by IC										
Perchlorate	U	4.00	1.38	4.00	ug/L	1	MAR104/11/07	0217	623347	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSBS0021AS01
Sample ID: 183629003
Matrix: LEACHATE
Collect Date: 02-APR-07 14:03
Receive Date: 04-APR-07
Collector: Client

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
<i>EPA 314.0 Perchlorate by IC (W/Leaching Procedure)</i>										
Perchlorate	U	4.00	1.38	4.00	ug/L	1	MAR104/11/07	0549	623347	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSBS0026AD01
Sample ID: 183629004
Matrix: LEACHATE
Collect Date: 02-APR-07 14:12
Receive Date: 04-APR-07
Collector: Client

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
<i>EPA 314.0 Perchlorate by IC (W/Leaching Procedure)</i>										
Perchlorate	U	4.00	1.38	4.00	ug/L	1	MAR104/11/07	0247	623347	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V

560

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSBS0026AS01
Sample ID: 183629005
Matrix: LEACHATE
Collect Date: 02-APR-07 14:12
Receive Date: 04-APR-07
Collector: Client

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
<i>EPA 314.0 Perchlorate by IC (W/Leaching Procedure)</i>										
Perchlorate	U	U	4.00	1.38	4.00	ug/L	1	MAR104/11/07	0448	623347 1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 11, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BLBS0040S01
Sample ID: 183627005
Matrix: Soil
Collect Date: 02-APR-07 12:35
Receive Date: 04-APR-07
Collector: Client
Moisture: 5.37%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 20.2C	H	7.55	0.010	0.100	SU	1	AXC2 04/06/07	1701	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 11, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BLBS0048S01
Sample ID: 183627006
Matrix: Soil
Collect Date: 02-APR-07 13:20
Receive Date: 04-APR-07
Collector: Client
Moisture: 3.65%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
SW9045C pH Federal pH at Temp 20.3C	H	5.75	0.010	0.100	SU	1	AXC2 04/06/07	1706	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Report Date: April 11, 2007

Client Sample ID: BLBS0047S01
Sample ID: 183627007
Matrix: Soil
Collect Date: 02-APR-07 13:30
Receive Date: 04-APR-07
Collector: Client
Moisture: 6.71%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 18.9C	H	7.80	0.010	0.100	SU	1	AXC2 04/06/07	1707	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 11, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BLBS0041S01
Sample ID: 183627008
Matrix: Soil
Collect Date: 02-APR-07 14:25
Receive Date: 04-APR-07
Collector: Client
Moisture: 8.66%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
SW9045C pH Federal pH at Temp 19.3C	H	8.09	0.010	0.100	SU	1	AXC2 04/06/07	1711	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 11, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BLBS0039S01
Sample ID: 183627009
Matrix: Soil
Collect Date: 02-APR-07 14:45
Receive Date: 04-APR-07
Collector: Client
Moisture: 3.48%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 19.7C	H	6.48	0.010	0.100	SU	1	AXC2 04/06/07	1715	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 11, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSBS0081S01
Sample ID: 183627012
Matrix: Soil
Collect Date: 02-APR-07 12:06
Receive Date: 04-APR-07
Collector: Client
Moisture: 8.28%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i> pH at Temp 19.4C	H	7.98	0.010	0.100	SU	1	AXC2 04/06/07	1717	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

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Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 11, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSBS0080S01
Sample ID: 183627013
Matrix: Soil
Collect Date: 02-APR-07 12:21
Receive Date: 04-APR-07
Collector: Client
Moisture: 16.4%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
SW9045C pH Federal pH at Temp 19.2C	H	5.88	0.010	0.100	SU	1	AXC2 04/06/07	1719	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 11, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSBS0072D01
Sample ID: 183627014
Matrix: Soil
Collect Date: 02-APR-07 13:16
Receive Date: 04-APR-07
Collector: Client
Moisture: 7.87%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 18.5C	H	7.99	0.010	0.100	SU	1	AXC2 04/06/07	1721	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 11, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSBS0072S01
Sample ID: 183627015
Matrix: Soil
Collect Date: 02-APR-07 13:16
Receive Date: 04-APR-07
Collector: Client
Moisture: 10.3%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 18.4C	H	7.85	0.010	0.100	SU	1	AXC2 04/06/07	1728	622832	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 183763

Prepared by

MEC^X, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap
 Contract Task Order: 1261.500D.08
 Sample Delivery Group: 183763
 Project Manager: Dixie Hambrick
 Matrix: soil/water
 QC Level: V
 No. of Samples: 6
 No. of Reanalyses/Dilutions: 0
 Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample name	Matrix Type	Collection Date	Method
BBBS0001S01	183763001	N/A	soil	4/5/07	6020, 9045C
BBBS0006S01	183763002	N/A	soil	4/5/07	6020, 9045C
BBBS0002S01	183763003	N/A	soil	4/5/07	6020, 9045C
BBBS0003S01	183763004	N/A	soil	4/5/07	6020, 9045C
BBBS0004S01	183763005	N/A	soil	4/5/07	6020, 9045C
BBBS0005S01	183763006	N/A	soil	4/5/07	6020, 9045C

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory above the temperature limits of 4°C ±2°C, at 7°C; however, due to the nonvolatile nature of the analytes, no qualifications were required. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were present and intact on the sample coolers. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

II. Method Analyses

A. EPA METHOD 6020—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: April 25, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Method 6020*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: the analytical holding time, six months for ICP-MS metals, was met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no applicable detects.
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within method-established QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on BBBS0001S01. The RPD was within the method-established control limit of $\leq 20\%$.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on BBBS0001S01. The native concentration of arsenic was $\geq 4\times$ the spike concentration; therefore, these results were not assessed.
- Serial Dilution: Serial dilution analyses were performed on BBBS0001S01. The %D was within the method-established control limit of $\leq 10\%$.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: Arsenic was not detected in field blank EWQW0002F01. The sample in this SDG had no identified equipment rinsate sample.
- Field Duplicates: No field duplicate samples were identified for this SDG.

B. USEPA METHOD 9045C—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 25, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Method 9045C* and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, 24 hours from preparation for pH, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Not applicable to this analysis.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on BBBS0031S01 and ESBS0006S01. The RPDs were within the laboratory-established control limit of ≤5%.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this analysis.
- Sample Result Verification: Review is not applicable at a Level V validation.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Not applicable to this analysis.
 - Field Duplicates: No field duplicate samples were identified for this SDG.

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183763

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183763001

BASIS: Dry Weight

DATE COLLECTED 05-APR-07

CLIENT ID: BBBS0001S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	33.9	mg/kg		0.318	1.06	1	2	MS	BAJ	04/11/07 19:09	070411-7	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.501	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183763

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183763002

BASIS: Dry Weight

DATE COLLECTED 05-APR-07

CLIENT ID: BBBS0006S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 95.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	24.9	mg/kg		0.307	1.02	1	2	MS	PRB	04/16/07 12:38	070416-4	624758

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
624758	624757	SW846 3050B	0.512	g	50	mL	04/12/07	MJH

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183763

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183763003

BASIS: Dry Weight

DATE COLLECTED 05-APR-07

CLIENT ID: BBBS0002S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 93.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	34.9	mg/kg		0.312	1.04	1	2	MS	BAJ	04/11/07 19:45	070411-7	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.516	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183763

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183763004

BASIS: Dry Weight

DATE COLLECTED 05-APR-07

CLIENT ID: BBBS0003S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 99.25

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	14.9	mg/kg		0.3	1	1	2	MS	BAJ	04/11/07 19:50	070411-7	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.504	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183763

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183763005

BASIS: Dry Weight

DATE COLLECTED 05-APR-07

CLIENT ID: BBBS0004S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 94.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	11.9	mg/kg		0.314	1.05	1	2	MS	BAJ	04/11/07 19:55	070411-7	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.505	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183763

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183763006

BASIS: Dry Weight

DATE COLLECTED 05-APR-07

CLIENT ID: BBBS0005S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	2.8	mg/kg		0.351	1.17	1	2	MS	BAJ	04/11/07 20:01	070411-7	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.523	g	50	mL	04/10/07	KXS1

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BBBS0001S01
Sample ID: 183763001
Matrix: SOIL
Collect Date: 05-APR-07 10:59
Receive Date: 06-APR-07
Collector: Client
Moisture: 5.79%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 19.5C	H	7.45	0.010	0.100	SU	1	AXC2 04/09/07	1926	623533	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BBBS0006S01
Sample ID: 183763002
Matrix: SOIL
Collect Date: 05-APR-07 11:08
Receive Date: 06-APR-07
Collector: Client
Moisture: 4.68%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis Federal											
SW9045C pH Federal pH at Temp 20.4C	H	5.90	0.010	0.100	SU	1	AXC2	04/12/07	1941	624715	1

The following Analytical Methods were performed

Method	Description	Analyst	Comments
1	SW846 9045C		

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BBBS0002S01
Sample ID: 183763003
Matrix: SOIL
Collect Date: 05-APR-07 11:32
Receive Date: 06-APR-07
Collector: Client
Moisture: 6.78%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i> pH at Temp 19.4C	H	6.94	0.010	0.100	SU	1	AXC2 04/09/07	1928	623533	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BBBS0003S01
Sample ID: 183763004
Matrix: SOIL
Collect Date: 05-APR-07 11:49
Receive Date: 06-APR-07
Collector: Client
Moisture: .746%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
SW9045C pH Federal pH at Temp 19.3C	H	7.32	0.010	0.100	SU	1	AXC2 04/09/07	1929	623533	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BBBS0004S01
Sample ID: 183763005
Matrix: SOIL
Collect Date: 05-APR-07 12:11
Receive Date: 06-APR-07
Collector: Client
Moisture: 5.41%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i> pH at Temp 19.4C	H	7.35	0.010	0.100	SU	1	AXC2 04/09/07	1934	623533	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: BBBS0005S01
Sample ID: 183763006
Matrix: SOIL
Collect Date: 05-APR-07 12:32
Receive Date: 06-APR-07
Collector: Client
Moisture: 18.2%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
SW9045C pH Federal pH at Temp 19.4C	H	7.74	0.010	0.100	SU	1	AXC2 04/09/07	1937	623533	I

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 183796

Prepared by

MEC^X, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap
 Contract Task Order: 1261.500D.08
 Sample Delivery Group: 183796
 Project Manager: Dixie Hambrick
 Matrix: soil/water
 QC Level: V
 No. of Samples: 12
 No. of Reanalyses/Dilutions: 0
 Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample name	Matrix Type	Collection Date	Method
ESBS0031S01	183796001	N/A	soil	4/3/07	6020, 9045C
ESBS0035S01	183796002	N/A	soil	4/3/07	6020, 9045C
ESBS0024S01	183796003	N/A	soil	4/3/07	6010B, 9045C
ESBS0032D01	183796005	N/A	soil	4/3/07	6020, 9045C
ESBS0032S01	183796006	N/A	soil	4/3/07	6020, 9045C
ESBS0033S01	183796009	N/A	soil	4/3/07	6020, 9045C
ESBS0023S01	183796010	N/A	soil	4/3/07	6010B, 9045C
ESBS0022S01	183796011	N/A	soil	4/3/07	6010B, 9045C
ESBS0034S01	183796013	N/A	soil	4/3/07	6020, 9045C
ESBS0036S01	183796014	N/A	soil	4/3/07	6020, 9045C
ESQW0002F01	183799001	N/A	water	4/3/07	6010B, 6020
ESBS0031AS01	183799002	N/A	soil	4/3/07	314.0

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory above the temperature limits of 4°C ±2°C, at 9°C; however, due to the nonvolatile nature of the analytes, no qualifications were required. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were present and intact on the sample coolers. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHODS 6010B and 6020—Metals

Reviewed By: P.Meeks

Date Reviewed: April 25, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 6010B, and 6020*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no applicable detects.
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within method-established QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on ESBS0031S01 and ESBS0024S01. All RPDs were within the method-established control limit of $\leq 20\%$.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on ESBS0031S01 and ESBS0024S01. Antimony was recovered below the control limit in both the MS and the MSD; therefore, all antimony results were qualified as estimated, "UJ," for nondetects and, "J," for detects. Native concentrations of arsenic and aluminum were $\geq 4\times$ the spike concentration; therefore, these results were not assessed. All remaining recoveries and all RPDs were within method-established QC limits.
- Serial Dilution: Serial dilution analyses were performed on ESBS0031S01 and ESBS0024S01. All %Ds were within the method-established control limit of $\leq 10\%$.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Sodium was detected in field blank EWQW0002F01, but not at a concentration that required qualification of the site soil samples. The samples in this SDG had no identified equipment rinsate sample.
 - Field Duplicates: ESBS0032S01 and ESBS0032D01 were identified as field duplicate samples. All detects were in common and all RPDs were $\leq 100\%$.

B. EPA METHOD 314.0—Perchlorate

Reviewed By: P. Meeks

Date Reviewed: April 25, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Metals (DVP-20, Rev. 0)*, *EPA Method 314.0*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, 28 days, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: The recovery was within the method-established QC limits of 85-115%.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample in this SDG.
- Sample Result Verification: The sample result reported on the Form I was verified against the raw data. No transcription errors or calculation errors were noted. Reported nondetects are valid to the reporting limit.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: Perchlorate was not detected in field blank FSQW0003F01 (183627). This sample in this SDG had no identified equipment rinsate sample.
- Field Duplicates: There were no field duplicate samples identified for this SDG.

C. USEPA METHOD 9045C—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 25, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Method 9045C* and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, 24 hours from preparation for pH, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Not applicable to this analysis.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on ESBS0031S01 and ESBS0036S01. Both RPDs were within the laboratory-established control limit of $\leq 5\%$.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this analysis.
- Sample Result Verification: Review is not applicable at a Level V validation.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Not applicable to this analysis.
 - Field Duplicates: ESBS0032S01 and ESBS0032D01 were identified as field duplicate samples. The RPD was $\leq 100\%$.

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796001

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0031S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony <i>U/S/Q</i>	0.116	mg/kg	U	0.116	.465	1	2	MS	BAJ	04/12/07 02:10	070411-4	623651
7440-38-2	Arsenic	6.8	mg/kg		0.349	1.16	1	2	MS	BAJ	04/11/07 20:06	070411-2	623651
7439-92-1	Lead	14.4	mg/kg		0.116	.465	0.5	2	MS	BAJ	04/11/07 20:06	070411-2	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.504	g	50	mL	04/10/07	KXS1

LEVEL V^r

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796002

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0035S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony <i>UJ/Q</i>	0.115	mg/kg	U	0.115	.46	1	2	MS	BAJ	04/12/07 02:13	070411-4	623651
7440-38-2	Arsenic	5.7	mg/kg		0.345	1.15	1	2	MS	BAJ	04/11/07 20:11	070411-2	623651
7439-92-1	Lead	9.1	mg/kg		0.115	.46	0.5	2	MS	BAJ	04/11/07 20:11	070411-2	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.503	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796003

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0024S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 91.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	24900	mg/kg		7.1	20.9	20	1	P	HSC	04/11/07 09:27	041107-1	623664
7440-23-5	Sodium	117	mg/kg		4.7	15.7	50	1	P	HSC	04/11/07 09:27	041107-1	623664

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623664	623663	SW846 3050B	0.525	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796005

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0032D01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony <i>UJ/Q</i>	0.110	mg/kg	U	0.11	.441	1	2	MS	BAJ	04/12/07 02:15	070411-4	623651
7440-38-2	Arsenic	3.9	mg/kg		0.331	1.1	1	2	MS	BAJ	04/11/07 20:16	070411-2	623651
7439-92-1	Lead	7.9	mg/kg		0.11	.441	0.5	2	MS	BAJ	04/11/07 20:16	070411-2	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.52	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796006

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0032S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony <i>UT/Q</i>	0.109	mg/kg	U	0.109	.436	1	2	MS	BAJ	04/12/07 02:22	070411-4	623651
7440-38-2	Arsenic	5.1	mg/kg		0.327	1.09	1	2	MS	BAJ	04/11/07 20:32	070411-2	623651
7439-92-1	Lead	11.6	mg/kg		0.109	.436	0.5	2	MS	BAJ	04/11/07 20:32	070411-2	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.524	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796009

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0033S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony <i>UJ/Q</i>	0.109	mg/kg	U	0.109	.436	1	2	MS	BAJ	04/12/07 02:24	070411-4	623651
7440-38-2	Arsenic	6.2	mg/kg		0.327	1.09	1	2	MS	BAJ	04/11/07 20:37	070411-2	623651
7439-92-1	Lead	12.8	mg/kg		0.109	.436	0.5	2	MS	BAJ	04/11/07 20:37	070411-2	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.522	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796010

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0023S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 92.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	25200	mg/kg		7.24	21.3	20	1	P	HSC	04/11/07 09:15	041107-1	623664
7440-23-5	Sodium	118	mg/kg		4.79	16	50	1	P	HSC	04/11/07 09:15	041107-1	623664

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623664	623663	SW846 3050B	0.509	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796011

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0022S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	30100	mg/kg		7.77	22.9	20	1	P	HSC	04/11/07 09:21	041107-1	623664
7440-23-5	Sodium	116	mg/kg		5.14	17.1	50	1	P	HSC	04/11/07 09:21	041107-1	623664

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623664	623663	SW846 3050B	0.5	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796013

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0034S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony <i>UJ/Q</i>	0.113	mg/kg	U	0.113	.45	1	2	MS	BAJ	04/12/07 02:27	070411-4	623651
7440-38-2	Arsenic	5.4	mg/kg		0.338	1.13	1	2	MS	BAJ	04/11/07 20:42	070411-2	623651
7439-92-1	Lead	11	mg/kg		0.113	.45	0.5	2	MS	BAJ	04/11/07 20:42	070411-2	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.521	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796S

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183796014

BASIS: Dry Weight

DATE COLLECTED 03-APR-07

CLIENT ID: ESBS0036S01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: SOIL

%SOLIDS: 91.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony <i>J/Q</i>	0.120	mg/kg	J	0.105	.422	1	2	MS	BAJ	04/12/07 02:29	070411-4	623651
7440-38-2	Arsenic	2.4	mg/kg		0.316	1.05	1	2	MS	BAJ	04/11/07 20:47	070411-2	623651
7439-92-1	Lead	18.5	mg/kg		0.105	.422	0.5	2	MS	BAJ	04/11/07 20:47	070411-2	623651

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623651	623648	SW846 3050B	0.519	g	50	mL	04/10/07	KXS1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 183796W

CONTRACT: SSFL00207

METHOD TYPE: SW846

SAMPLE ID: 183799001

BASIS: As Received

DATE COLLECTED 03-APR-07

CLIENT ID: ESQW0002F01

LEVEL: Low

DATE RECEIVED 06-APR-07

MATRIX: WATER

%SOLIDS:

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum U	0.068	mg/L	U	0.068	.2	0.05	1	P	HSC	04/12/07 12:58	041207-1	623674
7440-36-0	Antimony	0.50	ug/L	U	0.5	2	2	1	MS	RMJ	04/10/07 09:25	070409-2	623636
7440-38-2	Arsenic	1.5	ug/L	U	1.5	5	1	1	MS	RMJ	04/10/07 09:25	070409-2	623636
7439-92-1	Lead ↓	0.50	ug/L	U	0.5	2	1	1	MS	RMJ	04/10/07 09:25	070409-2	623636
7440-23-5	Sodium	0.070	mg/L	J	0.045	.15	0.5	1	P	HSC	04/12/07 12:58	041207-1	623674

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
623636	623632	SW846 3005A	50	mL	50	mL	04/09/07	KXS1
623674	623673	SW846 3005A	50	mL	50	mL	04/09/07	KXS1

LEVEL V

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 13, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: FSBS0031AS01
 Sample ID: 183799002
 Matrix: WATER
 Collect Date: 03-APR-07 09:08
 Receive Date: 06-APR-07
 Collector: Client

Project: SSFL00207
 Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
<i>EPA 314.0 Perchlorate by IC (W/Leaching Procedure)</i>										
Perchlorate	U	4.00	1.38	4.00	ug/L	1	MAR104/11/07	1517	623347	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 314.0	

LEVEL V
 607

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: ESBS0031S01
 Sample ID: 183796001
 Matrix: SOIL
 Collect Date: 03-APR-07 09:30
 Receive Date: 06-APR-07
 Collector: Client
 Moisture: 14.7%

Project: SSFL00207
 Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 20.2C	H	7.96	0.010	0.100	SU	1	LXW104/09/07	1833	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID:	ESBS0035S01	Project:	SSFL00207
Sample ID:	183796002	Client ID:	SSFL001
Matrix:	SOIL		
Collect Date:	03-APR-07 10:30		
Receive Date:	06-APR-07		
Collector:	Client		
Moisture:	13.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i> pH at Temp 20.8C	H	8.03	0.010	0.100	SU	1	LXW104/09/07	1836	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: ESBS0024S01
 Sample ID: 183796003
 Matrix: SOIL
 Collect Date: 03-APR-07 11:06
 Receive Date: 06-APR-07
 Collector: Client
 Moisture: 8.8%

Project: SSFL00207
 Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 20.0C	H	7.85	0.010	0.100	SU	1	LXW104/09/07	1838	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: ESBS0032D01
 Sample ID: 183796005
 Matrix: SOIL
 Collect Date: 03-APR-07 11:30
 Receive Date: 06-APR-07
 Collector: Client
 Moisture: 12.9%

Project: SSFL00207
 Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 19.9C	H	8.04	0.010	0.100	SU	1	LXW104/09/07	1839	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: ESBS0032S01
 Sample ID: 183796006
 Matrix: SOIL
 Collect Date: 03-APR-07 11:30
 Receive Date: 06-APR-07
 Collector: Client
 Moisture: 12.5%

Project: SSFL00207
 Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 20.0C	H	7.84	0.010	0.100	SU	1	LXW104/09/07	1844	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: ESBS0033S01 Project: SSFL00207
 Sample ID: 183796009 Client ID: SSFL001
 Matrix: SOIL
 Collect Date: 03-APR-07 12:15
 Receive Date: 06-APR-07
 Collector: Client
 Moisture: 12%

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 19.5C	H	8.10	0.010	0.100	SU	1	LXW104/09/07	1847	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECX
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Contact : Ms. Elizabeth Wessling
Project : **Task Order 002 - SSFL Group 8 Sampling**

Report Date: April 16, 2007

Client Sample ID: ESBS0023S01
Sample ID: 183796010
Matrix: SOIL
Collect Date: 03-APR-07 12:17
Receive Date: 06-APR-07
Collector: Client
Moisture: 7.7%

Project: SSFL00207
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 19.6C	H	7.66	0.010	0.100	SU	1	LXW104/09/07	1848	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

Level V

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: ESBS0022S01
 Sample ID: 183796011
 Matrix: SOIL
 Collect Date: 03-APR-07 12:28
 Receive Date: 06-APR-07
 Collector: Client
 Moisture: 12.5%

Project: SSFL00207
 Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 19.3C	H	7.48	0.010	0.100	SU	1	LXW104/09/07	1850	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: ESBS0034S01
 Sample ID: 183796013
 Matrix: SOIL
 Collect Date: 03-APR-07 14:00
 Receive Date: 06-APR-07
 Collector: Client
 Moisture: 14.7%

Project: SSFL00207
 Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 18.9C	H	7.88	0.010	0.100	SU	1	LXW104/09/07	1852	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	

LEVEL V

Certificate of Analysis

Company : MECX
 Address : 12269 East Vassar Drive
 Aurora, Colorado 80014

Report Date: April 16, 2007

Contact: Ms. Elizabeth Wessling
 Project: **Task Order 002 - SSFL Group 8 Sampling**

Client Sample ID: ESBS0036S01
 Sample ID: 183796014
 Matrix: SOIL
 Collect Date: 03-APR-07 14:45
 Receive Date: 06-APR-07
 Collector: Client
 Moisture: 8.59%

Project: SSFL00207
 Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis Federal										
<i>SW9045C pH Federal</i>										
pH at Temp 19.7C	H	8.14	0.010	0.100	SU	1	LXW104/09/07	1855	623572	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C	



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 186234

Prepared by

MEC^X, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap
 Contract Task Order: 1261.500D.08.002
 Sample Delivery Group: 186234
 Project Manager: Dixie Hambrick
 Matrix: soil
 QC Level: V
 No. of Samples: 4
 No. of Reanalyses/Dilutions: 0
 Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method
FSBS0094S01	186234001	N/A	Soil	5/16/2007 1:21:00 PM	300.0, 8015B, 8270C
FSBS0094S01	186234003	N/A	Soil	5/16/2007 1:21:00 PM	8270C (PAH)
FSBS0094S02	186234002	N/A	Soil	5/16/2007 1:26:00 PM	300.0, 8015B, 8270C
FSBS0094S02	186234004	N/A	Soil	5/16/2007 1:26:00 PM	8270C (PAH)

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Samples custody seals were intact. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 8270C —Polynuclear Aromatic Hydrocarbons (PAHs)

Reviewed By: E. Wessling

Date Reviewed: June 3, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0)*, *EPA Method 8270C*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample FSBS0094S02. The recovery for acenaphthene was below QC limits in the MS only. No qualifications were determined to be necessary by the reviewer. All other percent recoveries and RPDs were within QC limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no target compounds detected in the field blank (186325) or the equipment rinsate (186348).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for PAH compounds and added phthalates by Method 8270C.

- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any result reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System performance: System performance is not evaluated at a Level V validation.

B. EPA METHOD 8015B—Extractable Total Fuel Hydrocarbons (EFHs)

Reviewed By: K. Shadowlight

Date Reviewed: June 2, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Total Fuel Hydrocarbons (DVP-8, Rev. 0)*, *EPA Method 8015B*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed for a sample in this SDG. Evaluation of method accuracy was based on blank spike results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no target compounds detected in the field blank, BLQW0019F01 (186235), or equipment rinsate, FSQW0005E01 (186348).
 - Field Duplicates: There were no field duplicates identified for this SDG.

- Compound Identification: Review is not applicable at a Level V validation. Four EFH hydrocarbon ranges were reported: C8-C11, C12-C14, C15-C20, and C21-C30. In addition the laboratory reported m-terphenyl, o-terphenyl, and p-terphenyl.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a level V validation. Any results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.

C. EPA METHOD 8270C —Semivolatile Organic Compounds (SVOC)

Reviewed By: E. Wessling

Date Reviewed: June 3, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0)*, *EPA Method 8270C*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and were analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blanks were nondetect for target compounds and TICs.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a sample in this SDG. Evaluation of method accuracy was based on blank spike recoveries.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no target compounds or TICs reported in the field blank (186235) or equipment rinsate (186348).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: Review is not applicable at a Level V validation.

- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for SVOC compounds by Method 8270C. Compounds present in an associated PAH fraction were rejected, "R," in these samples as duplicate data. Any reported TICs in the samples of this SDG were qualified as tentatively identified, "N."
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any result reported between the MDL and the reporting limit was qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were reported by the laboratory for this SDG. Any reported TICs in the samples of this SDG were qualified as estimated, "J." System contaminant TICs were rejected, "R."
- System performance: System performance is not evaluated at a Level V validation.

D. EPA METHOD 300.0—General Minerals

Reviewed By: P. Meeks

Date Reviewed: May 30, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Method 300.0*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, 28 days from collection for fluoride, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: The recovery was within laboratory-established QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on FSBS0094S01. The RPD was within the laboratory-established control limit of $\leq 5\%$.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on FSBS0094S01. Both recoveries were less than the laboratory control limit; therefore, fluoride detected in both samples was qualified as estimated, "J." The RPD was within the laboratory-established control limit of $\leq 5\%$.
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the reporting limit.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Fluoride was not detected in field blank BLQW0019F01 or equipment rinsate FSQW0005E01 (186348).
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186234
Lab Sample ID: 186234003
Client Sample: SIM SVOC list
Client ID: FSBS0094S01
Batch ID: 635642
Run Date: 05/20/2007 22:46
Data File: s1e2122.d
Prep Batch: 635641
Prep Date: 05/18/2007 21:45

Client: SSFL001
Date Collected: 05/16/2007 13:21
Date Received: 05/17/2007 09:30
Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Project: SSFL00507
Matrix: SOIL
%Moisture: 10
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: .5 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	18.5	ug/kg	3.70	18.5	20.0
83-32-9	Acenaphthene	U	18.5	ug/kg	6.19	18.5	20.0
129-00-0	Pyrene	U	18.5	ug/kg	5.81	18.5	20.0
91-20-3	Naphthalene	U	18.5	ug/kg	5.56	18.5	20.0
91-57-6	2-Methylnaphthalene	U	18.5	ug/kg	3.70	18.5	20.0
90-12-0	1-Methylnaphthalene	U	18.5	ug/kg	5.56	18.5	20.0
131-11-3	Dimethyl phthalate <i>Dimethylphthalate</i>	U	18.5	ug/kg	5.56	18.5	20.0
208-96-8	Acenaphthylene	U	18.5	ug/kg	5.56	18.5	20.0
84-66-2	Diethyl phthalate <i>Diethylphthalate</i>	U	18.5	ug/kg	5.56	18.5	20.0
86-73-7	Fluorene	U	18.5	ug/kg	5.56	18.5	20.0
85-01-8	Phenanthrene	U	18.5	ug/kg	5.56	18.5	20.0
120-12-7	Anthracene	U	18.5	ug/kg	3.70	18.5	20.0
84-74-2	Di-n-butyl phthalate <i>Di-n-butylphthalate</i>	J	6.57	ug/kg	5.56	18.5	20.0
206-44-0	Fluoranthene	U	18.5	ug/kg	5.56	18.5	20.0
85-68-7	Butyl benzyl phthalate <i>Butylbenzylphthalate</i>	U	18.5	ug/kg	5.56	18.5	20.0
56-55-3	Benzo(a)anthracene	U	18.5	ug/kg	5.56	18.5	20.0
218-01-9	Chrysene	U	18.5	ug/kg	5.56	18.5	20.0
117-81-7	Bis(2-ethylhexyl)phthalate <i>bis(2-Ethylhexyl)phthalate</i>	U	18.5	ug/kg	6.11	18.5	20.0
117-84-0	Di-n-octyl phthalate <i>Di-n-octylphthalate</i>	U	18.5	ug/kg	5.56	18.5	20.0
205-99-2	Benzo(h)fluoranthene	U	18.5	ug/kg	5.56	18.5	20.0
207-08-9	Benzo(k)fluoranthene	U	18.5	ug/kg	5.56	18.5	20.0
50-32-8	Benzo(a)pyrene	U	18.5	ug/kg	5.56	18.5	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	18.5	ug/kg	5.56	18.5	20.0
53-70-3	Dibenzo(a,h)anthracene	U	18.5	ug/kg	5.56	18.5	20.0
191-24-2	Benzo(ghi)perylene	U	18.5	ug/kg	5.56	18.5	20.0

Surrogate/Tracer recovery

	Result	Nominal	Units	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	1150	1850	ug/kg	62	(45%-97%)
2-Fluorophenol	1060	1850	ug/kg	57	(35%-98%)
Phenol-d5	1020	1850	ug/kg	55	(45%-95%)
2-Fluorobiphenyl	541	926	ug/kg	58	(45%-101%)
Nitrobenzene-d5	553	926	ug/kg	60	(45%-101%)
p-Terphenyl-d14	558	926	ug/kg	60	(41%-114%)

Comments:

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186234
Lab Sample ID: 186234004
Client Sample: SIM SVOC list
Client ID: FSBS0094S02
Batch ID: 635642
Run Date: 05/20/2007 23:08
Data File: s1e2123.d
Prep Batch: 635641
Prep Date: 05/18/2007 21:45

Client: SSFL001
Date Collected: 05/16/2007 13:26
Date Received: 05/17/2007 09:30
Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Project: SSFL00507
Matrix: SOIL
%Moisture: 16
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: .5 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	19.8	ug/kg	3.97	19.8	20.0
83-32-9	Acenaphthene	U	19.8	ug/kg	6.63	19.8	20.0
129-00-0	Pyrene	U	19.8	ug/kg	6.23	19.8	20.0
91-20-3	Naphthalene	U	19.8	ug/kg	5.95	19.8	20.0
91-57-6	2-Methylnaphthalene	U	19.8	ug/kg	3.97	19.8	20.0
90-12-0	1-Methylnaphthalene	U	19.8	ug/kg	5.95	19.8	20.0
131-11-3	Dimethyl phthalate <i>Dimethylphthalate</i>	U	19.8	ug/kg	5.95	19.8	20.0
208-96-8	Acenaphthylene	U	19.8	ug/kg	5.95	19.8	20.0
84-66-2	Dicthyl phthalate <i>Diethylphthalate</i>	U	19.8	ug/kg	5.95	19.8	20.0
86-73-7	Fluorene	U	19.8	ug/kg	5.95	19.8	20.0
85-01-8	Phenanthrene	U	19.8	ug/kg	5.95	19.8	20.0
120-12-7	Anthracene	U	19.8	ug/kg	3.97	19.8	20.0
84-74-2	Di-n-butyl phthalate <i>Di-n-butylphthalate</i>	U	19.8	ug/kg	5.95	19.8	20.0
206-44-0	Fluoranthene	U	19.8	ug/kg	5.95	19.8	20.0
85-68-7	Butyl benzyl phthalate <i>Butylbenzylphthalate</i>	U	19.8	ug/kg	5.95	19.8	20.0
56-55-3	Benzo(a)anthracene	U	19.8	ug/kg	5.95	19.8	20.0
218-01-9	Chrysene	U	19.8	ug/kg	5.95	19.8	20.0
117-81-7	Bis(2-ethylhexyl)phthalate <i>bis(2-Ethylhexyl)phthalate</i>	U	19.8	ug/kg	6.55	19.8	20.0
117-84-0	Di-n-octyl phthalate <i>Di-n-octylphthalate</i>	U	19.8	ug/kg	5.95	19.8	20.0
205-99-2	Benzo(b)fluoranthene	U	19.8	ug/kg	5.95	19.8	20.0
207-08-9	Benzo(k)fluoranthene	U	19.8	ug/kg	5.95	19.8	20.0
50-32-8	Benzo(a)pyrene	U	19.8	ug/kg	5.95	19.8	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	19.8	ug/kg	5.95	19.8	20.0
53-70-3	Dibenzo(a,h)anthracene	U	19.8	ug/kg	5.95	19.8	20.0
191-24-2	Benzo(ghi)perylene	U	19.8	ug/kg	5.95	19.8	20.0

Surrogate/Tracer recovery

Surrogate/Tracer	Result	Nominal	Units	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	1210	1980	ug/kg	61	(45%-97%)
2-Fluorophenol	996	1980	ug/kg	50	(35%-98%)
Phenol-d5	1000	1980	ug/kg	51	(45%-95%)
2-Fluorobiphenyl	512	992	ug/kg	52	(45%-101%)
Nitrobenzene-d5	511	992	ug/kg	51	(45%-101%)
p-Terphenyl-d14	555	992	ug/kg	56	(41%-114%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

level II

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186234
Lab Sample ID: 186234001

Client: SSFL001
Date Collected: 05/16/2007 13:21
Date Received: 05/17/2007 09:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 10
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD2.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0094S01
Batch ID: 636303
Run Date: 05/22/2007 11:50
Data File: s2e2207.d
Prep Batch: 636302
Prep Date: 05/21/2007 15:00

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	370	ug/kg	74.1	370	330
108-95-2	Phenol	U	370	ug/kg	74.1	370	330
95-57-8	2-Chlorophenol	U	370	ug/kg	74.1	370	330
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	74.1	370	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	370	ug/kg	74.1	370	250
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	37.0	370	330
83-32-9	Acenaphthene	U	37.0	ug/kg	12.4	37.0	330
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370	330
100-02-7	4-Nitrophenol	U	370	ug/kg	74.1	370	830
87-86-5	Pentachlorophenol	U	370	ug/kg	74.1	370	830
129-00-0	Pyrene	J	12.6	ug/kg	11.6	37.0	330
62-53-3	Aniline	U	370	ug/kg	130	370	420
111-44-4	Bis(2-chloroethyl) ether <i>bis(2-Chloroethyl) ether</i>	U	370	ug/kg	74.1	370	330
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	74.1	370	330
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370	330
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	74.1	370	330
108-60-1	Bis(2-chloroisopropyl) ether <i>bis(2-Chloroisopropyl) ether</i>	U	370	ug/kg	74.1	370	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	370	ug/kg	74.1	370	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	370	ug/kg	148	370	330
67-72-1	Hexachloroethane	U	370	ug/kg	74.1	370	330
98-95-3	Nitrobenzene	U	370	ug/kg	74.1	370	330
78-59-1	Isophorone	U	370	ug/kg	74.1	370	330
88-75-5	2-Nitrophenol	U	370	ug/kg	37.0	370	330
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	74.1	370	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	370	ug/kg	74.1	370	330
65-85-0	Benzoic acid	U	741	ug/kg	185	741	830
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0	330
106-47-8	4-Chloroaniline	U	370	ug/kg	74.1	370	330
87-68-3	Hexachlorobutadiene	U	370	ug/kg	74.1	370	330
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.41	37.0	330
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	74.1	370	830
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	74.1	370	330

Comments:

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level IV

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186234
Lab Sample ID: 186234001

Client: SSFL001
Date Collected: 05/16/2007 13:21
Date Received: 05/17/2007 09:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 10
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD2.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0094S01
Batch ID: 636303
Run Date: 05/22/2007 11:50
Data File: s2e2207.d
Prep Batch: 636302
Prep Date: 05/21/2007 15:00

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	74.1	370	330
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	13.0	37.0	330
88-74-4	2-Nitroaniline <i>o</i> -Nitroaniline	U	370	ug/kg	74.1	370	330
99-09-2	3-Nitroaniline <i>m</i> -Nitroaniline	U	370	ug/kg	74.1	370	330
131-11-3	Dimethyl phthalate <i>Dimethylphthalate</i>	U	370	ug/kg	74.1	370	330
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370	330
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0	330
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741	660
132-64-9	Dibenzofuran	U	370	ug/kg	74.1	370	330
84-66-2	Diethyl phthalate <i>Diethylphthalate</i>	U	370	ug/kg	74.1	370	330
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0	330
7005-72-3	4-Chlorophenyl phenyl ether <i>4-Chlorophenylphenylether</i>	U	370	ug/kg	37.0	370	330
534-52-1	4,6-Dinitro-2-methylphenol <i>2-Methyl-4,6-dinitrophenol</i>	U	370	ug/kg	74.1	370	420
100-01-6	4-Nitroaniline <i>p</i> -Nitroaniline	U	370	ug/kg	74.1	370	830
122-39-4	Diphenylamine	U	370	ug/kg	74.1	370	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene <i>1,2-Diphenylhydrazine</i>	U	370	ug/kg	74.1	370	330
101-55-3	4-Bromophenyl phenyl ether <i>4-Bromophenylphenylether</i>	U	370	ug/kg	37.0	370	330
118-74-1	Hexachlorobenzene	U	370	ug/kg	74.1	370	330
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0	330
120-12-7	Anthracene	U	37.0	ug/kg	7.41	37.0	330
84-74-2	Di-n-butyl phthalate <i>Di-n-butylphthalate</i>	U	370	ug/kg	37.0	370	330
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0	330
92-87-5	Benzidine	U	370	ug/kg	370	370	660
85-68-7	Butyl benzyl phthalate <i>Butylbenzylphthalate</i>	U	370	ug/kg	74.1	370	330
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0	330
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370	830
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0	330
117-81-7	Bis(2-ethylhexyl)phthalate <i>bis(2-Ethylhexyl)phthalate</i>	U	185	ug/kg	74.1	185	330
117-84-0	Di-n-octyl phthalate <i>Di-n-octylphthalate</i>	U	370	ug/kg	74.1	370	330
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0	330
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0	330
50-32-8	Benzo(e)pyrene	U	37.0	ug/kg	11.1	37.0	330

Comments:

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186234
Lab Sample ID: 186234001

Client: SSFL001
Date Collected: 05/16/2007 13:21
Date Received: 05/17/2007 09:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 10
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD2.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0094S01
Batch ID: 636303
Run Date: 05/22/2007 11:50
Data File: s2e2207.d
Prep Batch: 636302
Prep Date: 05/21/2007 15:00

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene <i>R/O</i>	U	37.0	ug/kg	11.1	37.0	330
53-70-3	Dibenzo(a,h)anthracene <i>↓</i>	U	37.0	ug/kg	11.1	37.0	420
191-24-2	Benzo(ghi)perylene <i>↓</i>	U	37.0	ug/kg	11.1	37.0	330
87-65-0	2,6-Dichlorophenol <i>u</i>	U	370	ug/kg	74.1	370	330
120-82-1	1,2,4-Trichlorobenzene <i>u</i>	U	370	ug/kg	74.1	370	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1580	1850	ug/kg	85	(45%-101%)
Nitrobenzene-d5	1550	1850	ug/kg	84	(45%-101%)
p-Terphenyl-d14	2020	1850	ug/kg	109	(41%-114%)
2,4,6-Tribromophenol	2830	3700	ug/kg	76	(45%-97%)
2-Fluorophenol	2740	3700	ug/kg	74	(35%-98%)
Phenol-d5	2580	3700	ug/kg	70	(45%-95%)

Comments:

- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level V

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186234
Lab Sample ID: 186234001

Date Collected: 05/16/2007 13:21
Date Received: 05/17/2007 09:30
Client: SSFL001

Matrix: SOIL
%Moisture: 10
Project: SSFL00507

Client ID: FSBS0094S01
Batch ID: 636303
Run Date: 05/22/2007 11:50
Prep Date: 05/21/2007 15:00

Method: SW846 8270C
Inst: MSD2.I
Analyst: JMB3
Aliquot: 30 g

SOP Ref: GL-OA-E-009
Dilution: 1
Inj. Vol: .5 uL
Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown	10.04	480	ug/kg		J
	Unknown	10.12	314	ug/kg		J
	Unknown	10.16	285	ug/kg		J
	Unknown	10.21	198	ug/kg		J
	Unknown	10.26	210	ug/kg		J
	Unknown	10.37	317	ug/kg		J
	Unknown	10.55	182	ug/kg		J
	Unknown	10.67	194	ug/kg		J
	Unknown	10.8	414	ug/kg		J
	Unknown	10.92	274	ug/kg		J
	Unknown Aldol Condensate	2.99	637	ug/kg		J
629-78-7	Heptadecane	8.89	271	ug/kg	93	NJ
	Unknown	8.95	153	ug/kg		J
	Unknown	9.12	173	ug/kg		J
	Unknown	9.2	167	ug/kg		J
	Unknown	9.24	168	ug/kg		J
	Unknown	9.38	338	ug/kg		J
	Unknown	9.42	169	ug/kg		J
	Unknown	9.48	267	ug/kg		J
	Unknown	9.56	205	ug/kg		J
	Unknown	9.66	277	ug/kg		J

level IV

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186234	Date Collected: 05/16/2007 13:21	Matrix: SOIL
Lab Sample ID: 186234001	Date Received: 05/17/2007 09:30	%Moisture: 10
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0094S01	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 636303	Inst: MSD2.I	Dilution: 1
Run Date: 05/22/2007 11:50	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 05/21/2007 15:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown <i>NS</i>	9.75	298	ug/kg		J
	Unknown	9.81	201	ug/kg		J
	Unknown	9.85	234	ug/kg		J
	Unknown	9.93	184	ug/kg		J
112-95-8	Eicosane	9.99	585	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186234
Lab Sample ID: 186234002

Client: SSFL001
Date Collected: 05/16/2007 13:26
Date Received: 05/17/2007 09:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 16
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD2.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0094S02
Batch ID: 636303
Run Date: 05/22/2007 12:10
Data File: s2e2208.d
Prep Batch: 636302
Prep Date: 05/21/2007 15:00

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	397	ug/kg	79.4	397	330
108-95-2	Phenol	U	397	ug/kg	79.4	397	330
95-57-8	2-Chlorophenol	U	397	ug/kg	79.4	397	330
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.4	397	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	397	ug/kg	79.4	397	250
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	39.7	397	330
83-32-9	Acenaphthene	U	39.7	ug/kg	13.3	39.7	330
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397	330
100-02-7	4-Nitrophenol	U	397	ug/kg	79.4	397	830
87-86-5	Pentachlorophenol	U	397	ug/kg	79.4	397	830
129-00-0	Pyrene	U	39.7	ug/kg	12.5	39.7	330
62-53-3	Aniline	U	397	ug/kg	139	397	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	397	ug/kg	79.4	397	330
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.4	397	330
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397	330
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.4	397	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl)ether</i>	U	397	ug/kg	79.4	397	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	397	ug/kg	79.4	397	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	397	ug/kg	159	397	330
67-72-1	Hexachloroethane	U	397	ug/kg	79.4	397	330
98-95-3	Nitrobenzene	U	397	ug/kg	79.4	397	330
78-59-1	Isophorone	U	397	ug/kg	79.4	397	330
88-75-5	2-Nitrophenol	U	397	ug/kg	39.7	397	330
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	79.4	397	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	397	ug/kg	79.4	397	330
65-85-0	Benzoic acid	U	794	ug/kg	198	794	830
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7	330
106-47-8	4-Chloroaniline	U	397	ug/kg	79.4	397	330
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.4	397	330
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.94	39.7	330
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.4	397	830
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.4	397	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level \neq

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186234
Lab Sample ID: 186234002

Client: SSFL001
Date Collected: 05/16/2007 13:26
Date Received: 05/17/2007 09:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 16
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD2.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0094S02
Batch ID: 636303
Run Date: 05/22/2007 12:10
Data File: s2e2208.d
Prep Batch: 636302
Prep Date: 05/21/2007 15:00

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.4	397	330
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.9	39.7	330
88-74-4	2-Nitroaniline	U	397	ug/kg	79.4	397	330
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	397	ug/kg	79.4	397	330
	<i>m</i> -Nitroaniline						
131-11-3	Dimethyl phthalate	U	397	ug/kg	79.4	397	330
	<i>Diethylphthalate</i>						
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397	330
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7	330
51-28-5	2,4-Dinitrophenol	U	794	ug/kg	151	794	660
132-64-9	Dibenzofuran	U	397	ug/kg	79.4	397	330
84-66-2	Diethyl phthalate	U	397	ug/kg	79.4	397	330
	<i>Diethylphthalate</i>						
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7	330
7005-72-3	4-Chlorophenyl phenyl ether	U	397	ug/kg	39.7	397	330
	<i>4-Chlorophenylphenylether</i>						
534-52-1	4,6-Dinitro-2-methylphenol	U	397	ug/kg	79.4	397	420
	<i>2-Methyl-4,6-dinitrophenol</i>						
100-01-6	4-Nitroaniline	U	397	ug/kg	79.4	397	830
	<i>p</i> -Nitroaniline						
122-39-4	Diphenylamine	U	397	ug/kg	79.4	397	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	397	ug/kg	79.4	397	330
	<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenyl phenyl ether	U	397	ug/kg	39.7	397	330
	<i>4-Bromophenylphenylether</i>						
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.4	397	330
85-01-8	Phenanthrene	U	39.7	ug/kg	11.9	39.7	330
120-12-7	Anthracene	U	39.7	ug/kg	7.94	39.7	330
84-74-2	Di-n-butyl phthalate	U	397	ug/kg	39.7	397	330
	<i>Di-n-butylphthalate</i>						
206-44-0	Fluoranthene	U	39.7	ug/kg	11.9	39.7	330
92-87-5	Benzidine	U	397	ug/kg	397	397	660
85-68-7	Butyl benzyl phthalate	U	397	ug/kg	79.4	397	330
	<i>Butylbenzylphthalate</i>						
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7	330
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397	830
218-01-9	Chrysene	U	39.7	ug/kg	11.9	39.7	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	198	ug/kg	79.4	198	330
	<i>bis(2-Ethylhexyl)phthalate</i>						
117-84-0	Di-n-octyl phthalate	U	397	ug/kg	79.4	397	330
	<i>Di-n-octylphthalate</i>						
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7	330
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7	330
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level III

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186234
Lab Sample ID: 186234002

Client: SSFL001
Date Collected: 05/16/2007 13:26
Date Received: 05/17/2007 09:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 16
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD2.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0094S02
Batch ID: 636303
Run Date: 05/22/2007 12:10
Data File: r2e2208.d
Prep Batch: 636302
Prep Date: 05/21/2007 15:00

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Allquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7	330
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7	420
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7	330
87-65-0	2,6-Dichlorophenol	U	397	ug/kg	79.4	397	330
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.4	397	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1680	1980	ug/kg	84	(45%-101%)
Nitrobenzene-d5	1640	1980	ug/kg	83	(45%-101%)
p-Terphenyl-d14	1960	1980	ug/kg	99	(41%-114%)
2,4,6-Tribromophenol	2880	3970	ug/kg	72	(45%-97%)
2-Fluorophenol	2860	3970	ug/kg	72	(35%-98%)
Phenol-d5	2700	3970	ug/kg	68	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

level IV

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186234	Date Collected: 05/16/2007 13:26	Matrix: SOIL
Lab Sample ID: 186234002	Date Received: 05/17/2007 09:30	%Moisture: 16
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0094S02	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 636303	Inst: MSD2.I	Dilution: 1
Run Date: 05/22/2007 12:10	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 05/21/2007 15:00	Allquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>R / #III</i>	2.99	709	ug/kg		J

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186234
Lab Sample ID: 186234001

Client: SSFL001
Date Collected: 05/16/2007 13:21
Date Received: 05/17/2007 09:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 10
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0094S01
Batch ID: 635433
Run Date: 05/19/2007 05:56
Data File: 024b2401.d
Prep Batch: 635432
Prep Date: 05/18/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Allquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
EFHD (C12-C14)	EFH C12-C14 <i>EFH (>C11 - C14)</i> U	U	3.70	mg/kg	1.22	3.70	5.00
EFHD (C15-C20)	EFH C15-C20 <i>EFH (>C14 - C20)</i> U	U	3.70	mg/kg	1.22	3.70	5.00
EFHD (C21-C30)	EFH C21-C30 <i>EFH (>C20 - C30)</i> J	J	2.27	mg/kg	1.22	3.70	5.00
EFHD (C8-C11)	EFH C8-C11 <i>EFH (C8 - C11)</i> U	U	3.70	mg/kg	1.22	3.70	5.00
92-06-8	m-Terphenyl	U	0.185	mg/kg	0.185	0.185	
84-15-1	o-Terphenyl	U	0.185	mg/kg	0.185	0.185	
92-94-4	p-Terphenyl	U	0.185	mg/kg	0.185	0.185	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
S-alpha-Androstane	1.36	1.85	mg/kg	73	(50%-150%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186234
Lab Sample ID: 186234002

Client: SSFL001
Date Collected: 05/16/2007 13:26
Date Received: 05/17/2007 09:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 16
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0094S02
Batch ID: 635433
Run Date: 05/19/2007 06:34
Data File: 025b2501.d
Prep Batch: 635432
Prep Date: 05/18/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Allquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
BFHD (C12-C14)	EPH C12-C14 <i>EFH (>C11 - C14)</i> u	U	3.97	mg/kg	1.31	3.97	5.00
BFHD (C15-C20)	EPH C15-C20 <i>EFH (>C14 - C20)</i> u	U	3.97	mg/kg	1.31	3.97	5.00
BFHD (C21-C30)	EPH C21-C30 <i>EFH (>C20 - C30)</i> J	J	1.67	mg/kg	1.31	3.97	5.00
BFHD (C8-C11)	EPH C8-C11 <i>EFH (C8 - C11)</i> u	U	3.97	mg/kg	1.31	3.97	5.00
92-06-8	m-Terphenyl	U	0.198	mg/kg	0.198	0.198	
84-15-1	o-Terphenyl	U	0.198	mg/kg	0.198	0.198	
92-94-4	p-Terphenyl	U	0.198	mg/kg	0.198	0.198	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.44	1.98	mg/kg	73	(50%-150%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECx, LLC
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0094S01
Sample ID: 186234001
Matrix: SOIL
Collect Date: 16-MAY-07 13:21
Receive Date: 17-MAY-07
Collector: Client
Moisture: 10%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Soil Fluoride	J/Q	J	3.52	0.312	5.00	mg/kg	1	RXM1	05/19/07	0103	635549 1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/18/07	1000	635546

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECx, LLC
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0094S02
Sample ID: 186234002
Matrix: SOIL
Collect Date: 16-MAY-07 13:26
Receive Date: 17-MAY-07
Collector: Client
Moisture: 16%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Soil Fluoride	J/q	4.87	0.353	5.00	mg/kg	1	RXM1	05/19/07	0225	635549	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/18/07	1000	635546

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V



DATA VALIDATION REPORT

Boeing SSFL RFI Group 8 Data Gap

SAMPLE DELIVERY GROUP: 186348

Prepared by

MEC^X, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL RFI Group 8 Data Gap
 Contract Task Order: 1261.500D.08.001
 Sample Delivery Group: 186348
 Project Manager: Dixie Hambrick
 Matrix: water/soil
 QC Level: V
 No. of Samples: 24
 No. of Reanalyses/Dilutions: 0
 Laboratory: GEL

Table 1. Sample Identification

Sample Name	Lab Sample Name	Sub-Lab Sample Name	Matrix	Collection	Method
FSBS0007AS01	186348015	N/A	Soil	5/17/2007 11:29:00 AM	300.0, 6020, 8015B, 8270C
FSBS0084S01	186348005	N/A	Soil	5/17/2007 8:43:00 AM	300.0, 6020, 8015B, 8270C
FSBS0084S02	186348006	N/A	Soil	5/17/2007 8:46:00 AM	300.0, 6020, 8015B, 8270C
FSBS0085D01	186348009	N/A	Soil	5/17/2007 9:52:00 AM	300.0, 6020, 8015B, 8270C
FSBS0085S01	186348010	N/A	Soil	5/17/2007 9:52:00 AM	300.0, 6020, 8015B, 8270C
FSBS0085S02	186348011	N/A	Soil	5/17/2007 9:55:00 AM	300.0, 6020, 8015B, 8270C
FSBS0086S01	186348007	N/A	Soil	5/17/2007 9:12:00 AM	300.0, 6020, 8015B, 8270C
FSBS0086S02	186348008	N/A	Soil	5/17/2007 9:17:00 AM	300.0, 6020, 8015B, 8270C
FSBS0087D01	186348012	N/A	Soil	5/17/2007 10:25:00 AM	300.0, 8015B, 8270C
FSBS0087D01	186348016	N/A	Soil	5/17/2007 10:25:00 AM	8270C SIM
FSBS0087S01	186348013	N/A	Soil	5/17/2007 10:25:00 AM	300.0, 8015B, 8270C
FSBS0087S01	186348017	N/A	Soil	5/17/2007 10:25:00 AM	8270C SIM
FSBS0087S02	186348014	N/A	Soil	5/17/2007 10:31:00 AM	300.0, 8015B, 8270C
FSBS0087S02	186348018	N/A	Soil	5/17/2007 10:31:00 AM	8270C SIM

FSBS0092D01	186348001	N/A	Soil	5/17/2007 7:26:00 AM	300.0, 6020, 7471A, 8015B, 8082
FSBS0092D01	G341-290-1B	N/A	Soil	5/17/2007 7:26:00 AM	1613B
FSBS0092S01	186348002	N/A	Soil	5/17/2007 7:26:00 AM	300.0, 6020, 7471A, 8015B, 8082
FSBS0092S01	G341-290-2B	N/A	Soil	5/17/2007 7:26:00 AM	1613B
FSBS0092S02	186348003	N/A	Soil	5/17/2007 7:46:00 AM	300.0, 6020, 7471A, 8015B, 8082
FSBS0092S02	G341-290-3B	N/A	Soil	5/17/2007 7:46:00 AM	1613B
FSBS0093S01	186348004	N/A	Soil	5/17/2007 7:57:00 AM	300.0, 6020, 7471A, 8015B, 8082
FSBS0093S01	G341-290-4B	N/A	Soil	5/17/2007 7:57:00 AM	1613B
FSQW0005E01	186352001	N/A	Water	5/17/2007 10:59:00 AM	300.0, 6010B, 6020, 7470A, 8015B, 8270C
FSQW0005E01	G341-290-5C	N/A	Water	5/17/2007 10:59:00 AM	1613B

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight

Date Reviewed: June 2, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0)*, *USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02)*.

- Holding Times: Extraction and analytical holding times were met. The samples were extracted and analyzed within one year of collection.
- Instrument Performance: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: There were numerous detects reported in the water method blank and several detects reported above the EDL in the soil method blank. Any detects at concentration less than five times those reported in the respective method blank were qualified as estimated nondetects, "UJ," and raised to the reporting limit in the samples of this SDG. As a portion of total HxCDFs included 1,2,3,4,7,8-HxCDF, the result was qualified as estimated, "J," due to method blank contamination in sample FSBS0092S01.
- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Sample BLQW0019F01 (186235) was the field blank and sample FSQW0005E01 was the equipment rinsate identified for this SDG. There were no reportable target compounds detected in the field QC samples.
 - Field Duplicates: Samples FSBS0092S01 and FSBS0092D01 were the field duplicate samples identified for this SDG. There were eleven common detects above the EDL; however, only two calculated RPDs were $\leq 100\%$.
- Internal Standards Performance: Internal standard recoveries are not routinely evaluated at a Level V validation; however, the recoveries were reported on the sample result summary. The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Quantitative interference was present in the results for total PeCDDs and total PeCDFs in some of the samples in this SDG. These results were denoted with a “Q,” by the laboratory. The results for total PeCDDs and total PeCDF in sample FSBS0092D01 and total PeCDFs in samples FSBS0092S01 and FSBS0093S01 were qualified as estimated, “J.” The laboratory calculated and reported compound-specific detection limits. Reported nondetects are valid to the estimated detection limit (EDL). Detects below the EDL were qualified as estimated, “J.”

B. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: June 1, 2007

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 6010B, 6020, 7470A/7471A*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.
- Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Zirconium was detected in method blank 635865 at 0.176 mg/kg and mercury was reported in method blank 635900 at -0.00283 mg/kg. Zirconium detected in FSBS0084S01 and FSBS0085S02 was qualified as estimated, “UJ.” Mercury detected in FSBS0093S01 was qualified as estimated, “J.” Arsenic, molybdenum, and zirconium were detected in method blank 635858 at 2.19, 0.207, and 0.00082 µg/L, respectively; therefore, arsenic, molybdenum, and zirconium detected in FSQW0005E01 were qualified as estimated nondetects, “UJ.”
- Interference Check Samples: Review is not applicable at a Level V validation.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on FSBS0007AS01 and FSBS0092D01. The zirconium RPDs were within the laboratory-established control limit. Laboratory duplicate analyses were also performed on FSQW0005E01; however, as

the sample was identified as a field QC sample, the results were not assessed.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on FSBS0007AS01 and FSBS0092D01. For FSBS0092D01, both zirconium recoveries were below the control limit and the RPD was acceptable. For FSBS0007AS01 one recovery was below the control limit and one was below 30%. Nondetected zirconium in the site soil samples was rejected, "R," and zirconium detected in the site soil samples was qualified as estimated, "J." All site sample zirconium detects were further qualified as estimated, "J," as the FSBA0007AS01 MS/MSD RPD exceeded the laboratory-established control limit. MS/MSD analyses were also performed on FSQW0005E01; however, as the sample was identified as a field QC sample, the results were not assessed.
- Serial Dilution: Serial dilution analyses were performed on FSBS0007AS01 and FSBS0092D01. The %Ds were acceptable. Serial dilutions analyses were also performed on FSQW0005E01; however, as the sample was identified as a field QC sample, the results were not assessed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Review is not applicable at a Level V validation. Nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: There were no applicable detects in field blank BLQW0019E01 (186235) or equipment rinsate FSQW0005E01.
 - Field Duplicates: Samples FSBS0092S01/FSBS0092D01 and FSBS0085S01/FSBS0085D01 were identified as field duplicate samples. All detects were in common and all RPDS were $\leq 100\%$.

C. EPA METHOD 8270C —Polynuclear Aromatic Hydrocarbons (PAHs)

Reviewed By: E. Wessling
Date Reviewed: June 3, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0)*, *EPA Method 8270C*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had a detect for bis(2-ethylhexyl) phthalate; therefore, bis(2-ethylhexyl) phthalate detected in all samples was qualified as nondetected, “U,” at the reporting limit.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample FSBS0007AS01. All percent recoveries and RPDs were within laboratory-established control limits.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: No target compounds were detected in field blank BLQW0019F01 (186235). The samples in this SDG had no identified equipment rinsate sample.
 - Field Duplicates: Samples FSBS0087S01 and FSBS0087D01 were identified as field duplicate samples. Both samples had low level detects for di-n-butyl phthalate with an RPD of 3.2%. The pair was considered to be in good agreement.
- Internal Standards Performance: Review is not applicable at a Level V validation.

- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for PAH compounds, NDMA, and added phthalates by Method 8270C. Sample FSBS0087D01 did not show a detect for di-n-butyl phthalate due to the incorrect reporting and method detection limits as identified by the reviewer. The reviewer corrected the From I to report this compound as an estimated detect, "J."
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any results reported between the MDL and the reporting limit were qualified as estimated, "J." The percent moisture was incorrectly calculated on the sample results form for FSBS0087D01. The reviewer corrected the percent moisture, MDLs and reporting limits. Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System performance: System performance is not evaluated at a Level V validation.

D. EPA METHOD 8082—PCBs

Reviewed By: K. Shadowlight

Date Reviewed: June 2, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 0)*, *EPA Method 8082*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and all samples were analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed for a sample in this SDG. Evaluation of method accuracy was based on blank spike results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.

Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: There were no target compounds detected in the field blank, BLQW001901 (186235). An equipment rinsate was not identified for the samples in this SDG.
- Field Duplicates: Samples FSBS0092S01 and FSBS0092D01 were identified as the field duplicate pair for this SDG. There were common detects for Aroclor 1254 and Aroclor 1260 with calculated RPDs $\leq 100\%$. Aroclor 1242 was detected above the reporting limit in sample FSBS0092S01 only.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for Aroclors by Method 8082.
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.

E. EPA METHOD 8270C —Semivolatile Organic Compounds (SVOC)

Reviewed By: E. Wessling

Date Reviewed: June 3, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0)*, *EPA Method 8270C*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and were analyzed within 40 days of extraction.
- GC/MS Tuning: Review is not applicable at a Level V validation.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: The method blanks were nondetect for target compounds. The method blanks had TIC detects; therefore, similar detects present in the site and field QC samples were rejected, "R."
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample FSBS0007AS01. All percent recoveries and RPDs were within laboratory-established control limits.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: No target compounds were detected in field blank BLQW0019F01 (186235) or equipment rinsate FSQW0005E01.
 - Field Duplicates: Samples FSBS0085S01/FSBS0085D01 and FSBS0087S01/FSBS0087D01 were identified as field duplicate pairs. Each pair had low level dissimilar TIC detects; however, the pairs were considered to be in good agreement.
- Internal Standards Performance: Review is not applicable at a Level V validation.
- Compound Identification: Review is not applicable at a Level V validation. The laboratory analyzed for SVOC compounds by Method 8270C. Compounds present in an associated PAH fraction in four samples were rejected, "R," in favor of the results in the PAH fraction. Any reported TICs in the samples of this SDG were qualified as tentatively identified, "N."
- Compound Quantification and Reported Detection Limits: Review is not applicable at a Level V validation. Any results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: The laboratory performed a TIC search for the samples. Any reported TICs in the samples of this SDG were qualified as estimated, "J." System contaminant TICs were rejected, "R."
- System performance: System performance is not evaluated at a Level V validation.

F. EPA METHOD 8015B—Extractable Total Fuel Hydrocarbons (EFHs)

Reviewed By: K. Shadowlight

Date Reviewed: June 2, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Total Fuel Hydrocarbons (DVP-8, Rev. 0)*, *EPA Method 8015B*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and the water sample was extracted within seven days of collection. All samples were analyzed within 40 days of extraction.
- Calibration: Review is not applicable at a Level V validation.

- **Blanks:** Target compounds EFH (C8-C11) and EFH (C12-C14) were reported at 1.59 mg/kg and 1.52 mg/kg, respectively, in the soil method blank. Any detects for EFH (C8-C11) reported at concentration less than five times the concentration of the method blank were qualified as nondetects, "U," and raised to the reporting limit in the soil site samples. There were no detects for EFH (C12-C14) reported in the associated soil samples. There were no other target compound detects above the MDL.
- **Blank Spikes and Laboratory Control Samples:** The recoveries were within laboratory-established QC limits.
- **Surrogate Recovery:** The surrogate recoveries were within laboratory-established QC limits.
- **Matrix Spike/Matrix Spike Duplicate:** MS/MSD analyses were performed for samples FSBS0007AS01 and FSQW0005E01 in this SDG. The recoveries and RPDs were within laboratory QC limits for the soil MS/MSD pair. Sample FSQW0005E01 was identified as field QC and as such is not a good candidate for MS/MSD analysis.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - **Field Blanks and Equipment Rinsates:** There were no target compounds detected in the field blank, BLQW0019F01 (186235), or equipment rinsate, FSQW0005E01.
 - **Field Duplicates:** Samples FSBS0085S01/BLBS0085D01, FSBS0087S01/FSBS0087D01, and FSBS0092S01/FSBS0092D01 were the field duplicate pairs identified for this SDG. Target compound EFH (C21-C30) was reported in field duplicate pair FSBS0087S01/D01, with a calculated RPD $\leq 100\%$. There were no other reportable target compounds detected in the field duplicate pairs. The pairs were considered to be in agreement.
- **Compound Identification:** Review is not applicable at a Level V validation. Four EFH hydrocarbon ranges were reported: C8-C11, C12-C14, C15-C20, and C21-C30. In addition the laboratory reported m-terphenyl, o-terphenyl, and p-terphenyl. For a selection of samples only terphenyls were reported.
- **Compound Quantification and Reported Detection Limits:** Review is not applicable at a Level V validation. Any results reported between the MDL and the reporting limit were qualified as estimated, "J." Reported nondetects are valid to the reporting limit.

G. EPA METHOD 300.0—General Minerals

Reviewed By: P. Meeks

Date Reviewed: May 31, 2007

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Method 300.0*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, 28 days from collection for fluoride, was met.
- Calibration: Review is not applicable at a Level V validation.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: The recovery was within laboratory-established QC limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on FSBS0092S02 and FSBS0007AS01. Both RPDs were within the laboratory-established control limit of $\leq 5\%$.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on FSBS0092S02 and FSBS0007AS01. Both recoveries for FSBS0092S02 were below 30% and both recoveries for FSBS0007AS01 were less than the laboratory-established control limit; therefore, fluoride detected in the site soil samples was qualified as estimated, "J."
- Sample Result Verification: Review is not applicable at a Level V validation. Reported nondetects are valid to the reporting limit.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: Fluoride was not detected in field blank BLQW0019F01 (186235) or equipment rinsate FSQW0005E01.
 - Field Duplicates: FSBS0092S01/FSBS0092D01, FSBS0085S01/FSBS0085D01, and FSBS0087S01/FSBS0087D01 were identified as field duplicate samples. All RPDs were $\leq 100\%$.

Method 1613--Boeing
186348001 *FSBS009200J*
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.363	0.678			
1,2,3,7,8-PeCDD	0.332	0.268	3.39	33:54	1.73	A
1,2,3,4,7,8-HxCDD	0.647	0.299	3.39	36:27	1.19	A
1,2,3,6,7,8-HxCDD	1.69	0.306	3.39	36:32	1.23	A
1,2,3,7,8,9-HxCDD	1.15	0.300	3.39	36:46	1.20	A
1,2,3,4,6,7,8-HpCDD	40.9	0.493	3.39	39:45	1.05	A
OCDD	478	0.789	6.78	43:53	0.89	
2,3,7,8-TCDF	0.781	0.425	0.678	30:05	0.78	
1,2,3,7,8-PeCDF	0.412	0.150	3.39	33:07	1.46	A
2,3,4,7,8-PeCDF	1.09	0.148	3.39	33:43	1.62	A
1,2,3,4,7,8-HxCDF	5.18	0.271	3.39	35:45	1.25	
1,2,3,6,7,8-HxCDF	1.08	0.260	3.39	35:51	1.31	A
2,3,4,6,7,8-HxCDF	0.758	0.273	3.39	36:20	1.10	A
1,2,3,7,8,9-HxCDF	0.500	0.385	3.39	37:05	1.27	A
1,2,3,4,6,7,8-HpCDF	22.5	0.284	3.39	38:32	1.00	
1,2,3,4,7,8,9-HpCDF	0.968	0.486	3.39	40:23	1.01	A
OCDF	38.9	0.693	6.78	44:10	0.9	
Total TCDDs	0.500	0.363	0.678			A
Total PeCDDs	2.06	0.268	3.39			AQ
Total HxCDDs	13.0	0.301	3.39			
Total HpCDDs	98.8	0.493	3.39			
Total TCDFs	6.29	0.425	0.678			
Total PeCDFs	10.0	0.149	3.39			Q
Total HxCDFs	18.4	0.293	3.39			
Total HpCDFs	34.7	0.369	3.39			
WHO-2005 TEQ (ND=0)	2.65					
WHO-2005 TEQ (ND=1/2)	3.01					

<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	SSFL	Report Basis:	Dry Weight
Sample ID:	186348001	Matrix:	Soil
		Weight / Volume:	16.11 Grams
		Solids / Lipids:	91.5 %
		Original pH :	NA
		Batch ID:	WG14261
<u>Laboratory Information</u>			
Project ID:	G341-290	Filename:	a21may07a-11
Sample ID:	G341-290-1B	Retchk:	a21may07a-1
Collection Date/Time:	17-May-07 07:26	Begin ConCal:	a21may07a-1
Receipt Date:	18-May-07 10:10	Initial Cal:	m1613-071006e
Extraction Date:	20-May-07		
Analysis Date:	22-May-07 0:10		

Level II

Method 1613--Boeing
186348002 FSBS0092501
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.362	0.611			
1,2,3,7,8-PeCDD	ND	0.252	3.06			
1,2,3,4,7,8-HxCDD	ND	0.289	3.06			
1,2,3,6,7,8-HxCDD	ND	0.302	3.06			
1,2,3,7,8,9-HxCDD	0.488	0.293	3.06	36:46	1.15	A
1,2,3,4,6,7,8-HpCDD	2.04	0.521	3.06	39:46	1.18	A
OCDD	23.2	0.930	6.11	43:54	0.93	
2,3,7,8-TCDF	ND	0.322	0.611			
1,2,3,7,8-PeCDF	ND	0.142	3.06			
2,3,4,7,8-PeCDF	0.182	0.157	3.06	33:43	1.52	A
1,2,3,4,7,8-HxCDF	1.43	0.202	3.06	35:46	1.19	A
1,2,3,6,7,8-HxCDF	0.286	0.200	3.06	35:52	1.08	A
2,3,4,6,7,8-HxCDF	ND	0.206	3.06			
1,2,3,7,8,9-HxCDF	ND	0.295	3.06			
1,2,3,4,6,7,8-HpCDF	5.24	0.324	3.06	38:32	1.05	
1,2,3,4,7,8,9-HpCDF	ND	0.521	3.06			
OCDF	6.62	0.696	6.11	44:11	0.83	
Total TCDDs	ND	0.362	0.611			
Total PeCDDs	ND	0.252	3.06			
Total HxCDDs	0.488	0.295	3.06			A
Total HpCDDs	4.22	0.521	3.06			
Total TCDFs	0.547	0.322	0.611			A
Total PeCDFs	1.13	0.150	3.06			AQ
Total HxCDFs	2.63	0.223	3.06			A
Total HpCDFs	5.96	0.410	3.06			
WHO-2005 TEQ (ND=0)	0.357					
WHO-2005 TEQ (ND=1/2)	1.12					

<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	SSFL	Report Basis:	Dry Weight
Sample ID:	186348002	Matrix:	Soil
		Weight / Volume:	17.56 Grams
		Solids / Lipids:	93.2 %
		Original pH :	NA
		Batch ID:	WG14261
<u>Laboratory Information</u>			
Project ID:	G341-290	Filename:	a21may07a-12
Sample ID:	G341-290-2B	Retchk:	a21may07a-1
Collection Date/Time:	17-May-07 07:26	Begin ConCal:	a21may07a-1
Receipt Date:	18-May-07 10:10	Initial Cal:	m1613-071006e
Extraction Date:	20-May-07		
Analysis Date:	22-May-07 0:57		

Level I

Method 1613--Boeing
186348003 FSB50092502
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.360	0.635			
1,2,3,7,8-PeCDD	ND	0.201	3.18			
1,2,3,4,7,8-HxCDD	ND	0.313	3.18			
1,2,3,6,7,8-HxCDD	ND	0.328	3.18			
1,2,3,7,8,9-HxCDD	ND	0.317	3.18			
1,2,3,4,6,7,8-HpCDD	1.21	0.468	3.18	39:45	1.11	A
OCDD	12.1	1.04	6.35	43:53	0.90	
2,3,7,8-TCDF	ND	0.314	0.635			
1,2,3,7,8-PeCDF	ND	0.155	3.18			
2,3,4,7,8-PeCDF	ND	0.168	3.18			
1,2,3,4,7,8-HxCDF	ND	0.211	3.18			
1,2,3,6,7,8-HxCDF	ND	0.213	3.18			
2,3,4,6,7,8-HxCDF	ND	0.216	3.18			
1,2,3,7,8,9-HxCDF	ND	0.305	3.18			
1,2,3,4,6,7,8-HpCDF	0.675	0.274	3.18	38:32	0.97	A
1,2,3,4,7,8,9-HpCDF	ND	0.441	3.18			
OCDF	1.08	0.764	6.35	44:10	0.9	A
Total TCDDs	ND	0.360	0.635			
Total PeCDDs	ND	0.201	3.18			
Total HxCDDs	ND	0.319	3.18			
Total HpCDDs	2.51	0.468	3.18			A
Total TCDFs	ND	0.314	0.635			
Total PeCDFs	ND	0.162	3.18			
Total HxCDFs	ND	0.233	3.18			
Total HpCDFs	1.04	0.347	3.18			A
WHO-2005 TEQ (ND=0)	0.0228					
WHO-2005 TEQ (ND=½)	0.866					

Client Information		Sample Information	
Project Name:	SSFL	Report Basis:	Dry Weight
Sample ID:	186348003	Matrix:	Soil
		Weight / Volume:	17.23 Grams
		Solids / Lipids:	91.4 %
		Original pH :	NA
		Batch ID:	WG14261
Laboratory Information			
Project ID:	G341-290	Filename:	a21may07a-13
Sample ID:	G341-290-3B	Retchk:	a21may07a-1
Collection Date/Time:	17-May-07 07:46	Begin ConCal:	a21may07a-1
Receipt Date:	18-May-07 10:10		
Extraction Date:	20-May-07		
Analysis Date:	22-May-07 1:45	Initial Cal:	m1613-071006e

Level II

Method 1613--Boeing
186348004 *FSB50093501*
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.265	0.571			
1,2,3,7,8-PeCDD	ND	0.216	2.85			
1,2,3,4,7,8-HxCDD	ND	0.287	2.85			
1,2,3,6,7,8-HxCDD	ND	0.282	2.85			
1,2,3,7,8,9-HxCDD	ND	0.282	2.85			
1,2,3,4,6,7,8-HpCDD	1.63	0.474	2.85	39:45	1.03	A
OCDD	23.3	0.729	5.71	43:53	0.88	
2,3,7,8-TCDF	ND	0.258	0.571			
1,2,3,7,8-PeCDF	ND	0.130	2.85			
2,3,4,7,8-PeCDF	ND	0.133	2.85			
1,2,3,4,7,8-HxCDF	ND	0.191	2.85			
1,2,3,6,7,8-HxCDF	ND	0.181	2.85			
2,3,4,6,7,8-HxCDF	ND	0.197	2.85			
1,2,3,7,8,9-HxCDF	ND	0.268	2.85			
1,2,3,4,6,7,8-HpCDF	0.735	0.271	2.85	38:32	1.00	A
1,2,3,4,7,8,9-HpCDF	ND	0.423	2.85			
OCDF	1.31	0.648	5.71	44:10	0.93	A
Total TCDDs	ND	0.265	0.571			
Total PeCDDs	ND	0.216	2.85			
Total HxCDDs	0.915	0.284	2.85			A
Total HpCDDs	5.83	0.474	2.85			
Total TCDFs	ND	0.258	0.571			
Total PeCDFs	1.55	0.131	2.85			AQ
Total HxCDFs	0.848	0.206	2.85			A
Total HpCDFs	1.19	0.337	2.85			A
WHO-2005 TBQ (ND=0)	0.0310					
WHO-2005 TBQ (ND=1/2)	0.754					

<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	SSFL	Report Basis:	Dry Weight
Sample ID:	186348004	Matrix:	Soil
		Weight / Volume:	17.88 Grams
		Solids / Lipids:	98.0 %
		Original pH:	NA
		Batch ID:	WG14261
<u>Laboratory Information</u>		Filename:	a21may07a-14
Project ID:	G341-290	Retchk:	a21may07a-1
Sample ID:	G341-290-4B	Begin ConCal:	a21may07a-1
Collection Date/Time:	17-May-07 07:57	Initial Cal:	m1613-071006c
Receipt Date:	18-May-07 10:10		
Extraction Date:	20-May-07		
Analysis Date:	22-May-07 2:33		

Level I

Method 1613--Boeing
186352001 *FSQWOOD5E01*
 General Engineering Labs

Analytical Data Summary Sheet

Analyte	Amount (ng/L)	EDL (ng/L)	Adj. RL (ng/L)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00613	0.00957			
1,2,3,7,8-PeCDD	ND	0.00431	0.0478			
1,2,3,4,7,8-HxCDD	ND	0.00576	0.0478			
1,2,3,6,7,8-HxCDD	ND	0.00552	0.0478			
1,2,3,7,8,9-HxCDD	ND	0.00559	0.0478			
1,2,3,4,6,7,8-HpCDD	ND	0.00863	0.0478			
OCDD	ND	0.0170	0.0957			
2,3,7,8-TCDF	ND	0.00513	0.00957			
1,2,3,7,8-PeCDF	ND	0.00257	0.0478			
2,3,4,7,8-PeCDF	ND	0.00281	0.0478			
1,2,3,4,7,8-HxCDF	0.00444	0.00361	0.0478	35:45	1.26	A
1,2,3,6,7,8-HxCDF	ND	0.00336	0.0478			
2,3,4,6,7,8-HxCDF	ND	0.00358	0.0478			
1,2,3,7,8,9-HxCDF	ND	0.00525	0.0478			
1,2,3,4,6,7,8-HpCDF	0.0131	0.00493	0.0478	38:32	1.08	A
1,2,3,4,7,8,9-HpCDF	ND	0.00802	0.0478			
OCDF	0.0185	0.0142	0.0957	44:10	0.95	A
Total TCDDs	ND	0.00613	0.00957			
Total PeCDDs	ND	0.00431	0.0478			
Total HxCDDs	ND	0.00562	0.0478			
Total HpCDDs	ND	0.00863	0.0478			
Total TCDFs	ND	0.00513	0.00957			
Total PeCDFs	ND	0.00269	0.0478			
Total HxCDFs	0.00444	0.00388	0.0478			A
Total HpCDFs	0.0131	0.00626	0.0478			A
WHO-2005 TEQ (ND=0)	0.000581					
WHO-2005 TEQ (ND=%)	0.0155					

<u>Client Information</u>		<u>Sample Information</u>	
Project Name:	SSFL	Matrix:	Water
Sample ID:	186352001	Weight / Volume:	1045 mL
		Solids / Lipids:	NA %
		Original pH :	5
		Batch ID:	WG14262
<u>Laboratory Information</u>		Filename:	a21may07a-6
Project ID:	G341-290	Retchk:	a21may07a-1
Sample ID:	G341-290-5C	Begin ConCal:	a21may07a-1
Collection Date/Time:	17-May-07 10:59	Initial Cal:	m1613-071006c
Receipt Date:	18-May-07 10:10		
Extraction Date:	20-May-07		
Analysis Date:	21-May-07 20:12		

Level II

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348001

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0092D01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 93.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7439-97-6	Mercury	0.072	mg/kg		0.00249	.00997	0.2	1	AV	ETL	05/22/07 08:46	052207S1-1	635902
7440-67-7	Zirconium <i>J/Q, *111</i>	3.3	mg/kg	N	0.106	.424	25	2	MS	PRB	05/23/07 18:06	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.503	g	50	mL	05/22/07	LXH2
635902	635900	SW846 7471A Prep	0.642	g	30	mL	05/21/07	RDD1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348002

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0092S01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 94

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7439-97-6	Mercury	0.10	mg/kg		0.00264	.0106	0.2	1	AV	ETL	05/22/07 08:48	052207S1-1	635902
7440-67-7	Zirconium <i>J/Q, III</i>	2.1	mg/kg	N	0.102	.407	25	2	MS	PRB	05/23/07 18:39	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.523	g	50	mL	05/22/07	LXH2
635902	635900	SW846 7471A Prep	0.604	g	30	mL	05/21/07	RDD1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348003

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0092S02

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 93.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7439-97-6	Mercury	0.017	mg/kg		0.00261	.0104	0.2	1	AV	ETL	05/22/07 08:50	052207S1-1	635902
7440-67-7	Zirconium <i>J/Q, III</i>	2.3	mg/kg	N	0.107	.427	25	2	MS	PRB	05/23/07 18:44	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.501	g	50	mL	05/22/07	LXH2
635902	635900	SW846 7471A Prep	0.615	g	30	mL	05/21/07	RDD1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348004

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0093S01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 97

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7439-97-6	Mercury <i>J/B</i>	0.013	mg/kg		0.00251	.0101	0.2	1	AV	ETL	05/22/07 08:51	052207S1-1	635902
7440-67-7	Zirconium <i>J/Q, III</i>	2.6	mg/kg	N	0.102	.409	25	2	MS	PRB	05/23/07 18:49	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.504	g	50	mL	05/22/07	LXH2
635902	635900	SW846 7471A Prep	0.615	g	30	mL	05/21/07	RDD1

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348005

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0084S01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 91.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-67-7	Zirconium <i>RO/B, G</i>	0.810	mg/kg	N	0.108	.431	25	2	MS	PRB	05/23/07 18:53	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.507	g	50	mL	05/22/07	LXH2

pm 6/17/07

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348006

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0084S02

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 92

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-67-7	Zirconium <i>J/Q, XIII</i>	4.5	mg/kg	N	0.104	.414	25	2	MS	PRB	05/23/07 18:58	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.525	g	50	mL	05/22/07	LXH2

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348007

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0086S01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-67-7	Zirconium <i>J/Q, XIII</i>	4.6	mg/kg	N	0.107	.426	25	2	MS	PRB	05/23/07 19:03	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.507	g	50	mL	05/22/07	LXH2

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348008

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0086S02

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 90.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-67-7	Zirconium <i>J/Q * III</i>	4.5	mg/kg	N	0.109	.436	25	2	MS	PRB	05/23/07 19:08	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.505	g	50	mL	05/22/07	LXH2

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348009

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0085D01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-67-7	Zirconium <i>J/S, *II</i>	4.6	mg/kg	N	0.109	.438	25	2	MS	PRB	05/23/07 19:12	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.506	g	50	mL	05/22/07	LXH2

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348010

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0085S01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 91.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-67-7	Zirconium <i>J/Q, III</i>	5.4	mg/kg	N	0.107	.429	25	2	MS	PRB	05/23/07 19:17	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635866	635865	SW846 3050B	0.51	g	50	mL	05/22/07	LXH2

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348011

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0085S02

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 95.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-67-7	Zirconium <i>207/B, Q</i>	0.530	mg/kg	N	0.104	.414	25	2	MS	PRB	05/23/07 19:22	070523-2	635866

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol	Units	Final wt/vol	Units	Date	Analyst
635866	635865	SW846 3050B	0.504	g	50	mL	05/22/07	LXH2

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348S

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186348015

BASIS: Dry Weight

DATE COLLECTED 17-MAY-07

CLIENT ID: FSBS0007AS01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-67-7	Zirconium <i>J/Q, III</i>	2.7	mg/kg	*N	0.1	.402	25	2	MS	BAJ	06/01/07 19:15	070601-3	638687

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
638687	638686	SW846 3050B	0.517	g	50	mL	05/31/07	FGA

LEVEL V

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 186348W

CONTRACT: SSFL00507

METHOD TYPE: SW846

SAMPLE ID: 186352001

BASIS: As Received

DATE COLLECTED 17-MAY-07

CLIENT ID: FSQW0005E01

LEVEL: Low

DATE RECEIVED 18-MAY-07

MATRIX: WATER

%SOLIDS:

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum U	0.068	mg/L	U	0.068	.2	0.05	1	P	JWJ	05/23/07 20:32	052307B-3	635838
7440-36-0	Antimony ↓	0.50	ug/L	U	0.5	2	2	1	MS	BAJ	05/23/07 08:02	070522-8	635859
7440-38-2	Arsenic UJ/B	2.2	ug/L	J	1.5	5	1	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-39-3	Barium U	0.50	ug/L	U	0.5	2	1	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-41-7	Beryllium ↓	0.10	ug/L	U	0.1	.5	0.5	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-42-8	Boron ↓	0.010	mg/L	U	0.01	.05	0.05	1	P	JWJ	05/23/07 20:32	052307B-3	635838
7440-43-9	Cadmium ↓	0.10	ug/L	U	0.1	1	1	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-47-3	Chromium ↓	1	ug/L	U	1	3	2	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-48-4	Cobalt ↓	0.10	ug/L	U	0.1	1	1	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-50-8	Copper ↓	0.20	ug/L	U	0.2	1	2	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7439-92-1	Lead ↓	0.50	ug/L	U	0.5	2	1	1	MS	BAJ	05/23/07 14:53	070523-9	635859
7439-93-2	Lithium ↓	0.002	mg/L	U	0.002	.01	0.05	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7439-97-6	Mercury ↓	0.060	ug/L	U	0.06	.2	0.2	1	AV	ETL	05/22/07 10:46	052207W1-1	635907
7439-98-7	Molybdenum UJ/B	0.110	ug/L	J	0.1	.5	2	1	MS	BAJ	05/23/07 08:02	070522-8	635859
7440-02-0	Nickel U	0.50	ug/L	U	0.5	2	2	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-09-7	Potassium ↓	0.080	mg/L	U	0.08	.3	0.5	1	MS	BAJ	05/23/07 14:53	070523-9	635859
7782-49-2	Selenium ↓	2.5	ug/L	U	2.5	5	2	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-22-4	Silver ↓	0.20	ug/L	U	0.2	1	1	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-23-5	Sodium ↓	0.080	mg/L	U	0.08	.25	0.5	1	MS	BAJ	05/23/07 14:53	070523-9	635859
7440-28-0	Thallium ↓	0.570	ug/L	J	0.4	1	1	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-62-2	Vanadium U	10	ug/L	U	10	30	2	1	MS	BAJ	05/23/07 14:53	070523-9	635859
7440-66-6	Zinc U	3	ug/L	J	2	10	20	1	MS	BAJ	05/22/07 19:10	070522-4	635859
7440-67-7	Zirconium UJ/B	0.0007	mg/L	J	0.0005	.002	0.2	1	MS	BAJ	05/23/07 15:43	070523-2	635859

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
635838	635835	SW846 3005A	50	mL	50	mL	05/21/07	SXJ1
635859	635858	SW846 3005A	50	mL	50	mL	05/21/07	SXJ1
635907	635905	SW846 7470A Prep	20	mL	20	mL	05/21/07	RDD1

LEVEL V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S	Client: SSFL001	Project: SSFL00507
Lab Sample ID: 186348016	Date Collected: 05/17/2007 10:25	Matrix: SOIL
Client Sample: SIM SVOC list	Date Received: 05/18/2007 10:30	%Moisture: 31.7 ^{7.3}
Client ID: FSBS0087D01	Method: SW846 8270C	Prep Basis: Dry Weight
Batch ID: 635765	Analyst: NAG1	SOP Ref: GL-OA-E-009
Run Date: 05/22/2007 01:47	Inj. Vol: .5 uL	Instrument: MSD8.1
Data File: s8e2141.d	Prep Method: SW846 3550B	Dilution: 1
Prep Batch: 635764	Aliquot: 30 g	Prep SOP Ref: GL-OA-E-010
Prep Date: 05/21/2007 10:30		Final Volume: .5 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	18.0	ug/kg	4.88	24.4	20.0
83-32-9	Acenaphthene	U	24.4	ug/kg	8.15	24.4	20.0
129-00-0	Pyrene	U	24.4	ug/kg	47.66	24.4	20.0
91-20-3	Naphthalene	U	24.4	ug/kg	7.32	24.4	20.0
91-57-6	2-Methylnaphthalene	U	24.4	ug/kg	4.88	24.4	20.0
90-12-0	1-Methylnaphthalene	U	24.4	ug/kg	7.32	24.4	20.0
131-11-3	Dimethyl phthalate <i>Dimethylphthalate</i>	U	24.4	ug/kg	7.32	24.4	20.0
208-96-8	Acenaphthylene	U	24.4	ug/kg	7.32	24.4	20.0
84-66-2	Diethyl phthalate <i>Diethylphthalate</i>	U	24.4	ug/kg	7.32	24.4	20.0
86-73-7	Fluorene	U	24.4	ug/kg	7.32	24.4	20.0
85-01-8	Phenanthrene	U	24.4	ug/kg	7.32	24.4	20.0
120-12-7	Anthracene	U	24.4	ug/kg	4.88	24.4	20.0
84-74-2	Di-n-butyl phthalate <i>Di-n-butylphthalate</i>	U	6.49	ug/kg	7.32	24.4	20.0
206-44-0	Fluoranthene	U	18.0	ug/kg	7.32	24.4	20.0
85-68-7	Butyl benzyl phthalate <i>Butylbenzylphthalate</i>	U	24.4	ug/kg	7.32	24.4	20.0
56-55-3	Benzo(a)anthracene	U	24.4	ug/kg	7.32	24.4	20.0
218-01-9	Chrysene	U	24.4	ug/kg	7.32	24.4	20.0
117-81-7	Bis(2-ethylhexyl)phthalate <i>bis(2-Ethylhexyl)phthalate</i>	BJ	21.3	ug/kg	4.88	24.4	20.0
117-84-0	Di-n-octyl phthalate <i>Di-n-octylphthalate</i>	U	24.4	ug/kg	7.32	24.4	20.0
205-99-2	Benzo(b)fluoranthene	U	24.4	ug/kg	7.32	24.4	20.0
207-08-9	Benzo(k)fluoranthene	U	24.4	ug/kg	7.32	24.4	20.0
50-32-8	Benzo(a)pyrene	U	24.4	ug/kg	7.32	24.4	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	24.4	ug/kg	7.32	24.4	20.0
53-70-3	Dibenzo(a,h)anthracene	U	24.4	ug/kg	7.32	24.4	20.0
191-24-2	Benzo(ghi)perylene	U	24.4	ug/kg	7.32	24.4	20.0

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	977	1220	ug/kg	80	(45%-101%)
Nitrobenzene-d5	974	1220	ug/kg	80	(45%-101%)
p-Terphenyl-d14	912	1220	ug/kg	75	(41%-114%)
2,4,6-Tribromophenol	1840	2440	ug/kg	75	(45%-97%)
2-Fluorophenol	1930	2440	ug/kg	79	(35%-98%)
Phenol-d5	1870	2440	ug/kg	77	(45%-95%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

EDW
6/11/07

Level II

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 1863485	Client: SSFL001	Project: SSFL00507
Lab Sample ID: 186348017	Date Collected: 05/17/2007 10:25	Matrix: SOIL
Client Sample: SIM SVOC list	Date Received: 05/18/2007 10:30	%Moisture: 5.9
Client ID: FSBS0087S01	Method: SW846 8270C	Prep Basis: Dry Weight
Batch ID: 635765	Analyst: NAG1	SOP Ref: GL-OA-E-009
Run Date: 05/22/2007 02:10	Inj. Vol: .5 uL	Instrument: MSD8.1
Data File: s8e2142.d	Prep Method: SW846 3550B	Dilution: 1
Prep Batch: 635764	Aliquot: 30 g	Prep SOP Ref: GL-OA-E-010
Prep Date: 05/21/2007 10:30		Final Volume: .5 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	17.7	ug/kg	3.54	17.7	20.0
83-32-9	Acenaphthene	U	17.7	ug/kg	5.92	17.7	20.0
129-00-0	Pyrene	U	17.7	ug/kg	5.56	17.7	20.0
91-20-3	Naphthalene	U	17.7	ug/kg	5.31	17.7	20.0
91-57-6	2-Methylnaphthalene	U	17.7	ug/kg	3.54	17.7	20.0
90-12-0	1-Methylnaphthalene	U	17.7	ug/kg	5.31	17.7	20.0
131-11-3	Dimethyl phthalate <i>Dimethylphthalate</i>	U	17.7	ug/kg	5.31	17.7	20.0
208-96-8	Acenaphthylene	U	17.7	ug/kg	5.31	17.7	20.0
84-66-2	Diethyl phthalate <i>Diethylphthalate</i>	U	17.7	ug/kg	5.31	17.7	20.0
86-73-7	Fluorene	U	17.7	ug/kg	5.31	17.7	20.0
85-01-8	Phenanthrene	U	17.7	ug/kg	5.31	17.7	20.0
120-12-7	Anthracene	U	17.7	ug/kg	3.54	17.7	20.0
84-74-2	Di-n-butyl phthalate <i>Di-n-butylphthalate</i>	J	6.70	ug/kg	5.31	17.7	20.0
206-44-0	Fluoranthene	U	17.7	ug/kg	5.31	17.7	20.0
85-68-7	Butyl benzyl phthalate <i>Butylbenzylphthalate</i>	U	17.7	ug/kg	5.31	17.7	20.0
26-35-3	Benzofluoranthene	U	17.7	ug/kg	5.31	17.7	20.0
218-01-9	Chrysene	U	17.7	ug/kg	5.31	17.7	20.0
117-81-7	Bis(2-ethylhexyl)phthalate <i>bis(2-Ethylhexyl)phthalate</i>	BJ	17.4	ug/kg	3.54	17.7	20.0
117-84-0	Di-n-octyl phthalate <i>Di-n-octylphthalate</i>	U	17.7	ug/kg	5.31	17.7	20.0
205-99-2	Benzo(b)fluoranthene	U	17.7	ug/kg	5.31	17.7	20.0
207-08-9	Benzo(k)fluoranthene	U	17.7	ug/kg	5.31	17.7	20.0
50-32-8	Benzo(a)pyrene	U	17.7	ug/kg	5.31	17.7	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	17.7	ug/kg	5.31	17.7	20.0
53-70-3	Dibenz(a,h)anthracene	U	17.7	ug/kg	5.31	17.7	20.0
191-24-2	Benzo(ghi)perylene	U	17.7	ug/kg	5.31	17.7	20.0

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery %	Acceptable Limits
2,4,6-Tribromophenol	1260	1770	ug/kg	71	(45%-97%)
2-Fluorophenol	1320	1770	ug/kg	75	(35%-98%)
Phenol-d5	1290	1770	ug/kg	73	(45%-95%)
2-Fluorobiphenyl	660	886	ug/kg	74	(45%-101%)
Nitrobenzene-d5	675	886	ug/kg	76	(45%-101%)
p-Terphenyl-d14	654	886	ug/kg	74	(41%-114%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

AM 6/4/07

413 Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348018
Client Sample: SIM SVOC list
Client ID: FSBS0087S02
Batch ID: 635765
Run Date: 05/22/2007 02:34
Data File: s8e2143.d
Prep Batch: 635764
Prep Date: 05/21/2007 10:30

Client: SSFL001
Date Collected: 05/17/2007 10:31
Date Received: 05/18/2007 10:30
Method: SW846 8270C
Analyst: NAG1
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Project: SSFL00507
Matrix: SOIL
%Moisture: 16.2
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD8.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: .5 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	19.9	ug/kg	3.98	19.9	20.0
83-32-9	Acenaphthene	U	19.9	ug/kg	6.65	19.9	20.0
129-00-0	Pyrene	U	19.9	ug/kg	6.25	19.9	20.0
91-20-3	Naphthalene	U	19.9	ug/kg	5.97	19.9	20.0
91-57-6	2-Methylnaphthalene	U	19.9	ug/kg	3.98	19.9	20.0
90-12-0	1-Methylnaphthalene	U	19.9	ug/kg	5.97	19.9	20.0
131-11-3	Dimethyl phthalate <i>Dimethylphthalate</i>	U	19.9	ug/kg	5.97	19.9	20.0
208-96-8	Acenaphthylene	U	19.9	ug/kg	5.97	19.9	20.0
84-66-2	Diethyl phthalate <i>Diethylphthalate</i>	U	19.9	ug/kg	5.97	19.9	20.0
86-73-7	Fluorene	U	19.9	ug/kg	5.97	19.9	20.0
85-01-8	Phenanthrene	U	19.9	ug/kg	5.97	19.9	20.0
120-12-7	Anthracene	U	19.9	ug/kg	3.98	19.9	20.0
84-74-2	Di-n-butyl phthalate <i>Di-n-butylphthalate</i>	J	6.50	ug/kg	5.97	19.9	20.0
206-44-0	Fluoranthene	U	19.9	ug/kg	5.97	19.9	20.0
85-68-7	Butyl benzyl phthalate <i>Butylbenzylphthalate</i>	U	19.9	ug/kg	5.97	19.9	20.0
56-55-3	Benzo(a)anthracene	U	19.9	ug/kg	5.97	19.9	20.0
218-01-9	Chrysene	U	19.9	ug/kg	5.97	19.9	20.0
117-81-7	Bis(2-ethylhexyl)phthalate <i>bis(2-Ethylhexyl)phthalate</i>	B	23.8	ug/kg	3.98	19.9	20.0
117-84-0	Di-n-octyl phthalate <i>Di-n-octylphthalate</i>	U	19.9	ug/kg	5.97	19.9	20.0
205-99-2	Benzo(b)fluoranthene	U	19.9	ug/kg	5.97	19.9	20.0
207-08-9	Benzo(k)fluoranthene	U	19.9	ug/kg	5.97	19.9	20.0
50-32-8	Benzo(a)pyrene	U	19.9	ug/kg	5.97	19.9	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	19.9	ug/kg	5.97	19.9	20.0
53-70-3	Dibenzo(a,h)anthracene	U	19.9	ug/kg	5.97	19.9	20.0
191-24-2	Benzo(ghi)perylene	U	19.9	ug/kg	5.97	19.9	20.0

Surrogate/Tracer recovery

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	1690	1990	ug/kg	85	(45%-97%)
2-Fluorophenol	1420	1990	ug/kg	71	(35%-98%)
Phenol-d5	1380	1990	ug/kg	69	(45%-95%)
2-Fluorobiphenyl	728	995	ug/kg	73	(45%-101%)
Nitrobenzene-d5	728	995	ug/kg	73	(45%-101%)
p-Terphenyl-d14	874	995	ug/kg	88	(41%-114%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

420 Level V

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 1863488
 Lab Sample ID: 186348019
 Client Sample: SIM SVOC list
 Client ID: FSBS0007AS01
 Batch ID: 635765
 Run Date: 05/22/2007 02:57
 Data File: s8c2144.d
 Prep Batch: 635764
 Prep Date: 05/21/2007 10:30

Client: SSFL001
 Date Collected: 05/17/2007 11:29
 Date Received: 05/18/2007 10:30
 Method: SW846 8270C
 Analyst: NAG1
 Inj. Vol: .5 uL
 Prep Method: SW846 3550B
 Aliquot: 30 g

Project: SSFL00507
 Matrix: SOIL
 % Moisture: 3.7
 Prep Basis: Dry Weight
 SOP Ref: GL-OA-E-009
 Instrument: MSD8.1
 Dilution: 1
 Prep SOP Ref: GL-OA-E-010
 Final Volume: .5 ml.

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	17.3	ug/kg	3.46	17.3	20.0
83-32-9	Acenaphthene	U	17.3	ug/kg	5.78	17.3	20.0
129-00-0	Pyrene	U	17.3	ug/kg	5.43	17.3	20.0
91-20-3	Naphthalene	U	17.3	ug/kg	5.19	17.3	20.0
91-57-6	2-Methylnaphthalene	U	17.3	ug/kg	3.46	17.3	20.0
90-12-0	1-Methylnaphthalene	U	17.3	ug/kg	5.19	17.3	20.0
131-11-3	Dimethyl phthalate <i>Dimethylphthalate</i>	U	17.3	ug/kg	5.19	17.3	20.0
208-96-8	Acenaphthylene	U	17.3	ug/kg	5.19	17.3	20.0
84-66-2	Diethyl phthalate <i>Diethylphthalate</i>	U	17.3	ug/kg	5.19	17.3	20.0
86-73-7	Fluorene	U	17.3	ug/kg	5.19	17.3	20.0
85-01-8	Phenanthrene	U	17.3	ug/kg	5.19	17.3	20.0
120-12-7	Anthracene	U	17.3	ug/kg	3.46	17.3	20.0
84-74-2	Di-n-butyl phthalate <i>Di-n-butylphthalate</i>	J	6.09	ug/kg	5.19	17.3	20.0
206-44-0	Fluoranthene	U	17.3	ug/kg	5.19	17.3	20.0
85-68-7	Butyl benzyl phthalate <i>Butylbenzylphthalate</i>	U	17.3	ug/kg	5.19	17.3	20.0
56-55-3	Benzo(a)anthracene	U	17.3	ug/kg	5.19	17.3	20.0
218-01-9	Chrysene	U	17.3	ug/kg	5.19	17.3	20.0
117-81-7	Bis(2-ethylhexyl)phthalate <i>bis(2-Ethylhexyl)phthalate</i>	BJ	15.2	ug/kg	3.46	17.3	20.0
117-84-0	Di-n-octyl phthalate <i>Di-n-octylphthalate</i>	U	17.3	ug/kg	5.19	17.3	20.0
205-99-2	Benzo(b)fluoranthene	U	17.3	ug/kg	5.19	17.3	20.0
207-08-9	Benzo(k)fluoranthene	U	17.3	ug/kg	5.19	17.3	20.0
50-32-8	Benzo(a)pyrene	U	17.3	ug/kg	5.19	17.3	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	17.3	ug/kg	5.19	17.3	20.0
53-70-3	Dibenz(a,h)anthracene	U	17.3	ug/kg	5.19	17.3	20.0
191-24-2	Benzo(ghi)perylene	U	17.3	ug/kg	5.19	17.3	20.0

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	1360	1730	ug/kg	78	(45%-97%)
2-Fluorophenol	1350	1730	ug/kg	78	(35%-98%)
Phenol-d5	1340	1730	ug/kg	77	(45%-95%)
2-Fluorobiphenyl	682	865	ug/kg	79	(45%-101%)
Nitrobenzene-d5	727	865	ug/kg	84	(45%-101%)
p-Terphenyl-d14	656	865	ug/kg	76	(41%-114%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

PM 6/4/07

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Level IV

PCB
Certificate of Analysis
Sample Summary

SDG Number: 186348S
 Lab Sample ID: 186348002

Client: SSFL001
 Date Collected: 05/17/2007 07:26
 Date Received: 05/18/2007 10:30

Project: SSFL00507
 Matrix: SOIL
 %Moisture: 6
 Prep Basis: Dry Weight
 SOP Ref: GL-OA-E-040
 Instrument: ECDIA.I
 Dilution: 1
 Prep SOP Ref: GL-OA-E-010
 Final Volume: 1 mL

Client ID: FSBS0092S01
 Batch ID: 635757
 Run Date: 05/22/2007 17:29
 Data File: Dual Column
 Prep Batch: 635756
 Prep Date: 05/21/2007 10:45

Method: SW846 8082
 Analyst: RAW2
 Inj. Vol: 1 uL
 Prep Method: SW846 3550B
 Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File	
12674-11-2	Aroclor-1016	u	U	3.55	ug/kg	1.18	3.55	50.0	036f3601.d
11104-28-2	Aroclor-1221		U	3.55	ug/kg	1.18	3.55	50.0	036f3601.d
11141-16-5	Aroclor-1232	↓	U	3.55	ug/kg	1.18	3.55	50.0	036f3601.d
53469-21-9	Aroclor-1242			23.4	ug/kg	1.18	3.55	50.0	036b3601.d
12672-29-6	Aroclor-1248	u	U	3.55	ug/kg	1.18	3.55	50.0	036f3601.d
11097-69-1	Aroclor-1254			45.8	ug/kg	1.18	3.55	50.0	036b3601.d
11096-82-5	Aroclor-1260			19.1	ug/kg	1.18	3.55	50.0	036b3601.d

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	Data File
Decachlorobiphenyl	6.08	7.09	ug/kg	86	(40%–109%)	036b3601.d
4cmx	6.02	7.09	ug/kg	85	(41%–112%)	036f3601.d

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level V

PCB
Certificate of Analysis
Sample Summary

SDG Number: 186348S	Client: SSFL001	Project: SSFL00507
Lab Sample ID: 186348001	Date Collected: 05/17/2007 07:26	Matrix: SOIL
	Date Received: 05/18/2007 10:30	%Moisture: 6.3
Client ID: FSBS0092D01	Method: SW846 8082	Prep Basis: Dry Weight
Batch ID: 635757	Analyst: RAW2	SOP Ref: GL-OA-E-040
Run Date: 05/22/2007 17:19	Inj. Vol: 1 uL	Instrument: ECD1A.I
Data File: Dual Column	Prep Method: SW846 3550B	Dilution: 1
Prep Batch: 635756	Aliquot: 30 g	Prep SOP Ref: GL-OA-E-010
Prep Date: 05/21/2007 10:45		Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File
12674-11-2	Aroclor-1016	U	3.56	ug/kg	1.18	3.56	50.0	035f3501.d
11104-28-2	Aroclor-1221	U	3.56	ug/kg	1.18	3.56	50.0	035f3501.d
11141-16-5	Aroclor-1232	U	3.56	ug/kg	1.18	3.56	50.0	035f3501.d
53469-21-9	Aroclor-1242	U	3.56	ug/kg	1.18	3.56	50.0	035f3501.d
12672-29-6	Aroclor-1248	U	3.56	ug/kg	1.18	3.56	50.0	035f3501.d
11097-69-1	Aroclor-1254		23.2	ug/kg	1.18	3.56	50.0	035b3501.d
11096-82-5	Aroclor-1260		10.1	ug/kg	1.18	3.56	50.0	035f3501.d

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	Data File
Decachlorobiphenyl	5.84	7.11	ug/kg	82	(40%-109%)	035b3501.d
4cmx	6.11	7.11	ug/kg	86	(41%-112%)	035f3501.d

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

PCB
Certificate of Analysis
Sample Summary

SDG Number: 186348S
 Lab Sample ID: 186348003

Client: SSFL001
 Date Collected: 05/17/2007 07:46
 Date Received: 05/18/2007 10:30

Project: SSFL00507
 Matrix: SOIL
 %Moisture: 6.5
 Prep Basis: Dry Weight
 SOP Ref: GL-OA-E-040
 Instrument: ECD1A.I
 Dilution: 1
 Prep SOP Ref: GL-OA-E-010
 Final Volume: 1 mL

Client ID: FSBS0092S02
 Batch ID: 635757
 Run Date: 05/22/2007 17:40
 Data File: Dual Column
 Prep Batch: 635756
 Prep Date: 05/21/2007 10:45

Method: SW846 8082
 Analyst: RAW2
 Inj. Vol: 1 uL
 Prep Method: SW846 3550B
 Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	50.0	037f3701.d
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	50.0	037f3701.d
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	50.0	037f3701.d
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	50.0	037f3701.d
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	50.0	037f3701.d
11097-69-1	Aroclor-1254	J	3.40	ug/kg	1.19	3.57	50.0	037f3701.d
11096-82-5	Aroclor-1260	J	1.70	ug/kg	1.19	3.57	50.0	037f3701.d

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	Data File
Decachlorobiphenyl	6.21	7.13	ug/kg	87	(40%-109%)	037b3701.d
4cmx	6.40	7.13	ug/kg	90	(41%-112%)	037f3701.d

Comments:

- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

**PCB
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348004

Client: SSFL001
Date Collected: 05/17/2007 07:57
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 3
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-040
Instrument: ECD1A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0093S01
Batch ID: 635757
Run Date: 05/22/2007 17:51
Data File: Dual Column
Prep Batch: 635756
Prep Date: 05/21/2007 10:45

Method: SW846 8082
Analyst: RAW2
Inj. Vol: 1 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL	Data File
12674-11-2	Aroclor-1016	U	3.44	ug/kg	1.14	3.44	50.0	038f3801.d
11104-28-2	Aroclor-1221	U	3.44	ug/kg	1.14	3.44	50.0	038f3801.d
11141-16-5	Aroclor-1232	U	3.44	ug/kg	1.14	3.44	50.0	038f3801.d
53469-21-9	Aroclor-1242	U	3.44	ug/kg	1.14	3.44	50.0	038f3801.d
12672-29-6	Aroclor-1248	U	3.44	ug/kg	1.14	3.44	50.0	038f3801.d
11097-69-1	Aroclor-1254	U	3.44	ug/kg	1.14	3.44	50.0	038f3801.d
11096-82-5	Aroclor-1260	U	3.44	ug/kg	1.14	3.44	50.0	038f3801.d

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits	Data File
Decachlorobiphenyl	6.06	6.87	ug/kg	88	(40%-109%)	038b3801.d
4cmx	6.02	6.87	ug/kg	88	(41%-112%)	038f3801.d

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348015

Client: SSFL001
Date Collected: 05/17/2007 11:29
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 3.7
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0007AS01
Batch ID: 635762
Run Date: 05/22/2007 00:40
Data File: s1e2149.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	346	ug/kg	69.2	346	330
108-95-2	Phenol	U	346	ug/kg	69.2	346	330
95-57-8	2-Chlorophenol	U	346	ug/kg	69.2	346	330
106-46-7	1,4-Dichlorobenzene	U	346	ug/kg	69.2	346	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	346	ug/kg	69.2	346	250
59-50-7	4-Chloro-3-methylphenol	U	346	ug/kg	34.6	346	330
83-32-9	Acenaphthene	U	34.6	ug/kg	11.6	34.6	330
121-14-2	2,4-Dinitrotoluene	U	346	ug/kg	34.6	346	330
100-02-7	4-Nitrophenol	U	346	ug/kg	69.2	346	830
87-86-5	Pentachlorophenol	U	346	ug/kg	69.2	346	830
129-00-0	Pyrene	U	34.6	ug/kg	10.9	34.6	330
62-53-3	Aniline	U	346	ug/kg	121	346	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	346	ug/kg	69.2	346	330
541-73-1	1,3-Dichlorobenzene	U	346	ug/kg	69.2	346	330
100-51-6	Benzyl alcohol	U	346	ug/kg	104	346	330
95-50-1	1,2-Dichlorobenzene	U	346	ug/kg	69.2	346	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl) ether</i>	U	346	ug/kg	69.2	346	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	346	ug/kg	69.2	346	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	346	ug/kg	138	346	330
67-72-1	Hexachloroethane	U	346	ug/kg	69.2	346	330
98-95-3	Nitrobenzene	U	346	ug/kg	69.2	346	330
78-59-1	Isophorone	U	346	ug/kg	69.2	346	330
88-75-5	2-Nitrophenol	U	346	ug/kg	34.6	346	330
105-67-9	2,4-Dimethylphenol	U	346	ug/kg	69.2	346	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	346	ug/kg	69.2	346	330
65-85-0	Benzoic acid	U	692	ug/kg	173	692	830
91-20-3	Naphthalene	U	34.6	ug/kg	10.4	34.6	330
106-47-8	4-Chloroaniline	U	346	ug/kg	69.2	346	330
87-68-3	Hexachlorobutadiene	U	346	ug/kg	69.2	346	330
91-57-6	2-Methylnaphthalene	U	34.6	ug/kg	6.92	34.6	330
77-47-4	Hexachlorocyclopentadiene	U	346	ug/kg	69.2	346	830
88-06-2	2,4,6-Trichlorophenol	U	346	ug/kg	69.2	346	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

369 Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348015

Client: SSFL001
Date Collected: 05/17/2007 11:29
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 3.7
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0007AS01
Batch ID: 635762
Run Date: 05/22/2007 00:40
Data File: s1e2149.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	346	ug/kg	69.2	346	330
91-58-7	2-Chloronaphthalene	U	34.6	ug/kg	12.1	34.6	330
88-74-4	2-Nitroaniline	U	346	ug/kg	69.2	346	330
99-09-2	3-Nitroaniline	U	346	ug/kg	69.2	346	330
131-11-3	Dimethyl phthalate	U	346	ug/kg	69.2	346	330
606-20-2	2,6-Dinitrotoluene	U	346	ug/kg	34.6	346	330
208-96-8	Acenaphthylene	U	34.6	ug/kg	10.4	34.6	330
51-28-5	2,4-Dinitrophenol	U	692	ug/kg	131	692	660
132-64-9	Dibenzofuran	U	346	ug/kg	69.2	346	330
84-66-2	Diethyl phthalate	U	346	ug/kg	69.2	346	330
86-73-7	Fluorene	U	34.6	ug/kg	10.4	34.6	330
7005-72-3	4-Chlorophenyl phenyl ether	U	346	ug/kg	34.6	346	330
534-52-1	4,6-Dinitro-2-methylphenol	U	346	ug/kg	69.2	346	420
100-01-6	4-Nitroaniline	U	346	ug/kg	69.2	346	830
122-39-4	Diphenylamine	U	346	ug/kg	69.2	346	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	346	ug/kg	69.2	346	330
101-55-3	4-Bromophenyl phenyl ether	U	346	ug/kg	34.6	346	330
118-74-1	Hexachlorobenzene	U	346	ug/kg	69.2	346	330
85-01-8	Phenanthrene	U	34.6	ug/kg	10.4	34.6	330
120-12-7	Anthracene	U	34.6	ug/kg	6.92	34.6	330
84-74-2	Di-n-butyl phthalate	U	346	ug/kg	34.6	346	330
206-44-0	Fluoranthene	U	34.6	ug/kg	10.4	34.6	330
92-87-5	Benzidine	U	346	ug/kg	346	346	660
85-68-7	Butyl benzyl phthalate	U	346	ug/kg	69.2	346	330
56-55-3	Benzo(a)anthracene	U	34.6	ug/kg	10.4	34.6	330
91-94-1	3,3'-Dichlorobenzidine	U	346	ug/kg	104	346	830
218-01-9	Chrysene	U	34.6	ug/kg	10.4	34.6	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	173	ug/kg	69.2	173	330
117-84-0	Di-n-octyl phthalate	U	346	ug/kg	69.2	346	330
205-99-2	Benzo(b)fluoranthene	U	34.6	ug/kg	10.4	34.6	330
207-08-9	Benzo(k)fluoranthene	U	34.6	ug/kg	10.4	34.6	330
50-32-8	Benzo(a)pyrene	U	34.6	ug/kg	10.4	34.6	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 1863485
Lab Sample ID: 186348015

Client: SSFL001
Date Collected: 05/17/2007 11:29
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 3.7
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0007AS01
Batch ID: 635762
Run Date: 05/22/2007 00:40
Data File: s1e2149.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	R/D U	34.6	ug/kg	10.4	34.6	330
53-70-3	Dibenzo(a,h)anthracene	U	34.6	ug/kg	10.4	34.6	420
191-24-2	Benzo(ghi)perylene	U	34.6	ug/kg	10.4	34.6	330
87-65-0	2,6-Dichlorophenol	u U	346	ug/kg	69.2	346	330
120-82-1	1,2,4-Trichlorobenzene	u U	346	ug/kg	69.2	346	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1300	1730	ug/kg	75	(45%-101%)
Nitrobenzene-d5	1300	1730	ug/kg	75	(45%-101%)
p-Terphenyl-d14	1170	1730	ug/kg	68	(41%-114%)
2,4,6-Tribromophenol	2840	3460	ug/kg	82	(45%-97%)
2-Fluorophenol	2570	3460	ug/kg	74	(35%-98%)
Phenol-d5	2540	3460	ug/kg	73	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

371 Level V

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186348S	Date Collected: 05/17/2007 11:29	Matrix: SOIL
Lab Sample ID: 186348015	Date Received: 05/18/2007 10:30	%Moisture: 3.7
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0007AS01	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635762	Inst: MSD11	Dilution: 1
Run Date: 05/22/2007 00:40	Analyst: CAK	Inj. Vol: .5 uL
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>R/* III</i>	2.74	1130	ug/kg		JA
	Unknown Hydrocarbon <i>R III B</i>	3.17	260	ug/kg		J
4291-79-6	Cyclohexane, 1-methyl-2-propyl- <i>↓</i>	3.34	187	ug/kg	90	NJ
71005-15-7	Pentadecane, 8-heptyl- <i>N J</i>	9.07	343	ug/kg	91	NJ
630-02-4	Octacosane <i>↓</i>	9.73	448	ug/kg	91	NJ

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Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348005

Client: SSFL001
Date Collected: 05/17/2007 08:43
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8.4

Client ID: FSBS0084S01
Batch ID: 635762
Run Date: 05/21/2007 21:05
Data File: s1e2139.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	364	ug/kg	72.8	364	330
108-95-2	Phenol	U	364	ug/kg	72.8	364	330
95-57-8	2-Chlorophenol	U	364	ug/kg	72.8	364	330
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.8	364	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	364	ug/kg	72.8	364	250
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	36.4	364	330
83-32-9	Acenaphthene	U	36.4	ug/kg	12.2	36.4	330
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364	330
100-02-7	4-Nitrophenol	U	364	ug/kg	72.8	364	830
87-86-5	Pentachlorophenol	U	364	ug/kg	72.8	364	830
129-00-0	Pyrene	U	36.4	ug/kg	11.4	36.4	330
62-53-3	Aniline	U	364	ug/kg	127	364	420
111-44-4	Bis(2-chloroethyl) ether <i>bis(2-Chloroethyl) ether</i>	U	364	ug/kg	72.8	364	330
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.8	364	330
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364	330
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.8	364	330
108-60-1	Bis(2-chloroisopropyl) ether <i>bis(2-Chloroisopropyl) ether</i>	U	364	ug/kg	72.8	364	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	364	ug/kg	72.8	364	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	364	ug/kg	146	364	330
67-72-1	Hexachloroethane	U	364	ug/kg	72.8	364	330
98-95-3	Nitrobenzene	U	364	ug/kg	72.8	364	330
78-59-1	Isophorone	U	364	ug/kg	72.8	364	330
88-75-5	2-Nitrophenol	U	364	ug/kg	36.4	364	330
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	72.8	364	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	364	ug/kg	72.8	364	330
65-85-0	Benzoic acid	U	728	ug/kg	182	728	830
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4	330
106-47-8	4-Chloroaniline	U	364	ug/kg	72.8	364	330
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.8	364	330
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.28	36.4	330
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.8	364	830
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.8	364	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

375 Level VI

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348005

Client: SSFL001
Date Collected: 05/17/2007 08:43
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8.4

Client ID: FSBS0084S01
Batch ID: 635762
Run Date: 05/21/2007 21:05
Data File: s1e2139.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.8	364	330
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.7	36.4	330
88-74-4	2-Nitroaniline	U	364	ug/kg	72.8	364	330
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	364	ug/kg	72.8	364	330
	<i>m</i> -Nitroaniline						
131-11-3	Dimethyl phthalate	U	364	ug/kg	72.8	364	330
	<i>Dimethylphthalate</i>						
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364	330
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4	330
51-28-5	2,4-Dinitrophenol	U	728	ug/kg	138	728	660
132-64-9	Dibenzofuran	U	364	ug/kg	72.8	364	330
84-66-2	Diethyl phthalate	U	364	ug/kg	72.8	364	330
	<i>Diethylphthalate</i>						
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4	330
7005-72-3	4-Chlorophenyl phenyl ether	U	364	ug/kg	36.4	364	330
	<i>4-Chlorophenylphenylether</i>						
534-52-1	4,6-Dinitro-2-methylphenol	U	364	ug/kg	72.8	364	420
	<i>2-Methyl-4,6-dinitrophenol</i>						
100-01-6	4-Nitroaniline	U	364	ug/kg	72.8	364	830
	<i>p</i> -Nitroaniline						
122-39-4	Diphenylamine	U	364	ug/kg	72.8	364	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	364	ug/kg	72.8	364	330
	<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenyl phenyl ether	U	364	ug/kg	36.4	364	330
	<i>4-Bromophenylphenylether</i>						
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.8	364	330
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4	330
120-12-7	Anthracene	U	36.4	ug/kg	7.28	36.4	330
84-74-2	Di-n-butyl phthalate	U	364	ug/kg	36.4	364	330
	<i>Di-n-butylphthalate</i>						
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4	330
92-87-5	Benzidine	U	364	ug/kg	364	364	660
85-68-7	Butyl benzyl phthalate	U	364	ug/kg	72.8	364	330
	<i>Butylbenzylphthalate</i>						
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4	330
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364	830
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	182	ug/kg	72.8	182	330
	<i>bis(2-Ethylhexyl)phthalate</i>						
117-84-0	Di-n-octyl phthalate	U	364	ug/kg	72.8	364	330
	<i>Di-n-octylphthalate</i>						
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4	330
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4	330
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

376 Level V

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348005

Client: SSFL001
Date Collected: 05/17/2007 08:43
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8.4
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0084S01
Batch ID: 635762
Run Date: 05/21/2007 21:05
Data File: s1e2139.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4	330
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4	420
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4	330
87-65-0	2,6-Dichlorophenol	U	364	ug/kg	72.8	364	330
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.8	364	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1300	1820	ug/kg	71	(45%-101%)
Nitrobenzene-d5	1310	1820	ug/kg	72	(45%-101%)
p-Terphenyl-d14	1150	1820	ug/kg	63	(41%-114%)
2,4,6-Tribromophenol	2710	3640	ug/kg	74	(45%-97%)
2-Fluorophenol	2630	3640	ug/kg	72	(35%-98%)
Phenol-d5	2400	3640	ug/kg	66	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

377 Level V

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186348S	Date Collected: 05/17/2007 08:43	Matrix: SOIL
Lab Sample ID: 186348005	Date Received: 05/18/2007 10:30	% Moisture: 8.4
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0084S01	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635762	Inst: MSD1.1	Dilution: 1
Run Date: 05/21/2007 21:05	Analyst: CAK	Inj. Vol: .5 uL
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>R1*III</i>	2.74	1180	ug/kg		JA
	Unknown <i>R2/B</i>	3.17	216	ug/kg		J
4291-79-6	Cyclohexane, 1-methyl-2-propyl- <i>↓</i>	3.34	177	ug/kg	90	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348006

Client: SSFL001
Date Collected: 05/17/2007 08:46
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
% Moisture: 8
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0084S02
Batch ID: 635762
Run Date: 05/21/2007 21:27
Data File: s1e2140.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Nitrosodimethylamine</i>	U	362	ug/kg	72.5	362	330
108-95-2	Phenol	U	362	ug/kg	72.5	362	330
95-57-8	2-Chlorophenol	U	362	ug/kg	72.5	362	330
106-46-7	1,4-Dichlorobenzene	U	362	ug/kg	72.5	362	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	362	ug/kg	72.5	362	250
59-50-7	4-Chloro-3-methylphenol	U	362	ug/kg	36.2	362	330
83-32-9	Acenaphthene	U	36.2	ug/kg	12.1	36.2	330
121-14-2	2,4-Dinitrotoluene	U	362	ug/kg	36.2	362	330
100-02-7	4-Nitrophenol	U	362	ug/kg	72.5	362	830
87-86-5	Pentachlorophenol	U	362	ug/kg	72.5	362	830
129-00-0	Pyrene	U	36.2	ug/kg	11.4	36.2	330
62-53-3	Aniline	U	362	ug/kg	127	362	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	362	ug/kg	72.5	362	330
541-73-1	1,3-Dichlorobenzene	U	362	ug/kg	72.5	362	330
100-51-6	Benzyl alcohol	U	362	ug/kg	109	362	330
95-50-1	1,2-Dichlorobenzene	U	362	ug/kg	72.5	362	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl)ether</i>	U	362	ug/kg	72.5	362	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	362	ug/kg	72.5	362	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	362	ug/kg	145	362	330
67-72-1	Hexachloroethane	U	362	ug/kg	72.5	362	330
98-95-3	Nitrobenzene	U	362	ug/kg	72.5	362	330
78-59-1	Isophorone	U	362	ug/kg	72.5	362	330
88-75-5	2-Nitrophenol	U	362	ug/kg	36.2	362	330
105-67-9	2,4-Dimethylphenol	U	362	ug/kg	72.5	362	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	362	ug/kg	72.5	362	330
65-85-0	Benzoic acid	U	725	ug/kg	181	725	830
91-20-3	Naphthalene	U	36.2	ug/kg	10.9	36.2	330
106-47-8	4-Chloroaniline	U	362	ug/kg	72.5	362	330
87-68-3	Hexachlorobutadiene	U	362	ug/kg	72.5	362	330
91-57-6	2-Methylnaphthalene	U	36.2	ug/kg	7.25	36.2	330
77-47-4	Hexachlorocyclopentadiene	U	362	ug/kg	72.5	362	830
88-06-2	2,4,6-Trichlorophenol	U	362	ug/kg	72.5	362	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348006

Client: SSFL001
Date Collected: 05/17/2007 08:46
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0084S02
Batch ID: 635762
Run Date: 05/21/2007 21:27
Data File: s1e2140.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: 5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	362	ug/kg	72.5	362	330
91-58-7	2-Chloronaphthalene	U	36.2	ug/kg	12.7	36.2	330
88-74-4	2-Nitroaniline	U	362	ug/kg	72.5	362	330
99-09-2	<i>o</i> -Nitroaniline	U	362	ug/kg	72.5	362	330
99-09-2	<i>m</i> -Nitroaniline	U	362	ug/kg	72.5	362	330
131-11-3	Dimethyl phthalate	U	362	ug/kg	72.5	362	330
606-20-2	<i>Dimethylphthalate</i>	U	362	ug/kg	36.2	362	330
208-96-8	2,6-Dinitrotoluene	U	36.2	ug/kg	10.9	36.2	330
208-96-8	Accnaphthylene	U	36.2	ug/kg	10.9	36.2	330
51-28-5	2,4-Dinitrophenol	U	725	ug/kg	138	725	660
132-64-9	Dibenzofuran	U	362	ug/kg	72.5	362	330
84-66-2	Diethyl phthalate	U	362	ug/kg	72.5	362	330
84-66-2	<i>Diethylphthalate</i>	U	362	ug/kg	72.5	362	330
86-73-7	Fluorene	U	36.2	ug/kg	10.9	36.2	330
7005-72-3	4-Chlorophenyl phenyl ether	U	362	ug/kg	36.2	362	330
534-52-1	<i>4-Chlorophenylphenylether</i>	U	362	ug/kg	72.5	362	420
100-01-6	4,6-Dinitro-2-methylphenol	U	362	ug/kg	72.5	362	830
100-01-6	<i>2-Methyl-4,6-dinitrophenol</i>	U	362	ug/kg	72.5	362	830
100-01-6	4-Nitroaniline	U	362	ug/kg	72.5	362	830
122-39-4	<i>p</i> -Nitroaniline	U	362	ug/kg	72.5	362	330
122-39-4	Diphenylamine	U	362	ug/kg	72.5	362	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	362	ug/kg	72.5	362	330
122-66-7	<i>1,2-Diphenylhydrazine</i>	U	362	ug/kg	72.5	362	330
101-55-3	4-Bromophenyl phenyl ether	U	362	ug/kg	36.2	362	330
101-55-3	<i>4-Bromophenylphenylether</i>	U	362	ug/kg	36.2	362	330
118-74-1	Hexachlorobenzene	U	362	ug/kg	72.5	362	330
85-01-8	Phenanthrene	U	36.2	ug/kg	10.9	36.2	330
120-12-7	Anthracene	U	36.2	ug/kg	7.25	36.2	330
84-74-2	Di-n-butyl phthalate	U	362	ug/kg	36.2	362	330
84-74-2	<i>Di-n-butylphthalate</i>	U	362	ug/kg	36.2	362	330
206-44-0	Fluoranthene	U	36.2	ug/kg	10.9	36.2	330
92-87-5	Benzidine	U	362	ug/kg	362	362	660
85-68-7	Butyl benzyl phthalate	U	362	ug/kg	72.5	362	330
85-68-7	<i>Butylbenzylphthalate</i>	U	362	ug/kg	72.5	362	330
56-55-3	Benzo(a)anthracene	U	36.2	ug/kg	10.9	36.2	330
91-94-1	3,3'-Dichlorobenzidine	U	362	ug/kg	109	362	830
218-01-9	Chrysene	U	36.2	ug/kg	10.9	36.2	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	181	ug/kg	72.5	181	330
117-81-7	<i>bis(2-Ethylhexyl)phthalate</i>	U	181	ug/kg	72.5	181	330
117-84-0	Di-n-octyl phthalate	U	362	ug/kg	72.5	362	330
117-84-0	<i>Di-n-octylphthalate</i>	U	362	ug/kg	72.5	362	330
205-99-2	Benzo(b)fluoranthene	U	36.2	ug/kg	10.9	36.2	330
207-08-9	Benzo(k)fluoranthene	U	36.2	ug/kg	10.9	36.2	330
50-32-8	Benzo(a)pyrene	U	36.2	ug/kg	10.9	36.2	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348006

Client: SSFL001
Date Collected: 05/17/2007 08:46
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0084S02
Batch ID: 635762
Run Date: 05/21/2007 21:27
Data File: s1e2140.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.2	ug/kg	10.9	36.2	330
53-70-3	Dibenzo(a,h)anthracene	U	36.2	ug/kg	10.9	36.2	420
191-24-2	Benzo(ghi)perylene	U	36.2	ug/kg	10.9	36.2	330
87-65-0	2,6-Dichlorophenol	U	362	ug/kg	72.5	362	330
120-82-1	1,2,4-Trichlorobenzene	U	362	ug/kg	72.5	362	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1310	1810	ug/kg	72	(45%-101%)
Nitrobenzene-d5	1310	1810	ug/kg	72	(45%-101%)
p-Terphenyl-d14	1250	1810	ug/kg	69	(41%-114%)
2,4,6-Tribromophenol	2500	3620	ug/kg	69	(45%-97%)
2-Fluorophenol	2580	3620	ug/kg	71	(35%-98%)
Phenol-d5	2450	3620	ug/kg	68	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

381 Level V

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186348S	Date Collected: 05/17/2007 08:46	Matrix: SOIL
Lab Sample ID: 186348006	Date Received: 05/18/2007 10:30	% Moisture: 8
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0084S02	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635762	Inst: MSD1J	Dilution: 1
Run Date: 05/21/2007 21:27	Analyst: CAK	Inj. Vol: .5 uL
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>R/#III</i>	2.74	1240	ug/kg		JA
	Unknown <i>R III / B</i>	3.17	277	ug/kg		J
4291-79-6	Cyclohexane, 1-methyl-2-propyl- <i>↓</i>	3.34	198	ug/kg	91	NJ

MM
6/4/07

382 *Level IV*

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348009

Client: SSFL001
Date Collected: 05/17/2007 09:52
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 9.7
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085D01
Batch ID: 635762
Run Date: 05/21/2007 22:31
Data File: s1e2143.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	369	ug/kg	73.9	369	330
108-95-2	Phenol	U	369	ug/kg	73.9	369	330
95-57-8	2-Chlorophenol	U	369	ug/kg	73.9	369	330
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.9	369	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	369	ug/kg	73.9	369	250
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	36.9	369	330
83-32-9	Acenaphthene	U	36.9	ug/kg	12.3	36.9	330
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369	330
100-02-7	4-Nitrophenol	U	369	ug/kg	73.9	369	830
87-86-5	Pentachlorophenol	U	369	ug/kg	73.9	369	830
129-00-0	Pyrene	U	36.9	ug/kg	11.6	36.9	330
62-53-3	Aniline	U	369	ug/kg	129	369	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	369	ug/kg	73.9	369	330
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.9	369	330
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369	330
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.9	369	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl) ether</i>	U	369	ug/kg	73.9	369	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	369	ug/kg	73.9	369	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	369	ug/kg	148	369	330
67-72-1	Hexachloroethane	U	369	ug/kg	73.9	369	330
98-95-3	Nitrobenzene	U	369	ug/kg	73.9	369	330
78-59-1	Isophorone	U	369	ug/kg	73.9	369	330
88-75-5	2-Nitrophenol	U	369	ug/kg	36.9	369	330
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	73.9	369	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	369	ug/kg	73.9	369	330
65-85-0	Benzoic acid	U	739	ug/kg	185	739	830
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9	330
106-47-8	4-Chloroaniline	U	369	ug/kg	73.9	369	330
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.9	369	330
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.39	36.9	330
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.9	369	830
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.9	369	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

383 Level IV

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348009

Client: SSFL001
Date Collected: 05/17/2007 09:52
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 9.7

Client ID: FSBS0085D01
Batch ID: 635762
Run Date: 05/21/2007 22:31
Data File: s1e2143.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.9	369	330
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.9	36.9	330
88-74-4	2-Nitroaniline	U	369	ug/kg	73.9	369	330
99-09-2	3-Nitroaniline	U	369	ug/kg	73.9	369	330
131-11-3	Dimethyl phthalate	U	369	ug/kg	73.9	369	330
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369	330
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9	330
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739	660
132-64-9	Dibenzofuran	U	369	ug/kg	73.9	369	330
84-66-2	Diethyl phthalate	U	369	ug/kg	73.9	369	330
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9	330
7005-72-3	4-Chlorophenyl phenyl ether	U	369	ug/kg	36.9	369	330
534-52-1	4,6-Dinitro-2-methylphenol	U	369	ug/kg	73.9	369	420
100-01-6	4-Nitroaniline	U	369	ug/kg	73.9	369	830
122-39-4	Diphenylamine	U	369	ug/kg	73.9	369	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	369	ug/kg	73.9	369	330
101-55-3	4-Bromophenyl phenyl ether	U	369	ug/kg	36.9	369	330
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.9	369	330
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9	330
120-12-7	Anthracene	U	36.9	ug/kg	7.39	36.9	330
84-74-2	Di-n-butyl phthalate	U	369	ug/kg	36.9	369	330
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9	330
92-87-5	Benzidine	U	369	ug/kg	369	369	660
85-68-7	Butyl benzyl phthalate	U	369	ug/kg	73.9	369	330
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9	330
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369	830
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	185	ug/kg	73.9	185	330
117-84-0	Di-n-octyl phthalate	U	369	ug/kg	73.9	369	330
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9	330
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9	330
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

384 Level IV

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348009

Client: SSFL001
Date Collected: 05/17/2007 09:52
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 9.7
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085D01
Batch ID: 635762
Run Date: 05/21/2007 22:31
Data File: s1e2143.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9	330
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9	420
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9	330
87-65-0	2,6-Dichlorophenol	U	369	ug/kg	73.9	369	330
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.9	369	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1440	1850	ug/kg	78	(45%-101%)
Nitrobenzene-d5	1430	1850	ug/kg	77	(45%-101%)
p-Terphenyl-d14	1190	1850	ug/kg	65	(41%-114%)
2,4,6-Tribromophenol	2770	3690	ug/kg	75	(45%-97%)
2-Fluorophenol	2880	3690	ug/kg	78	(35%-98%)
Phenol-d5	2810	3690	ug/kg	76	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

385 Level V

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186348S	Date Collected: 05/17/2007 09:52	Matrix: SOIL
Lab Sample ID: 186348009	Date Received: 05/18/2007 10:30	% Moisture: 9.7
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0085D01	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635762	Inst: MSD1.1	Dilution: 1
Run Date: 05/21/2007 22:31	Analyst: CAK	Inj. Vol: .5 uL
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>R 1/3 III</i>	2.74	1310	ug/kg		JA
	Unknown <i>R 1/3 B</i>	3.17	263	ug/kg		J
4291-79-6	Cyclohexane, 1-methyl-2-propyl- <i>↓</i>	3.34	200	ug/kg	91	NJ

mm 6/4/07

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348010

Client ID: FSBS0085S01
Batch ID: 635762
Run Date: 05/21/2007 22:52
Data File: s1e2144.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Client: SSFL001
Date Collected: 05/17/2007 09:52
Date Received: 05/18/2007 10:30

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Project: SSFL00507
Matrix: SOIL
%Moisture: 8.6

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD11
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamin</i>	U	365	ug/kg	73.0	365	330
108-95-2	Phenol	U	365	ug/kg	73.0	365	330
95-57-8	2-Chlorophenol	U	365	ug/kg	73.0	365	330
106-46-7	1,4-Dichlorobenzene	U	365	ug/kg	73.0	365	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	365	ug/kg	73.0	365	250
59-50-7	4-Chloro-3-methylphenol	U	365	ug/kg	36.5	365	330
83-32-9	Acenaphthene	U	36.5	ug/kg	12.2	36.5	330
121-14-2	2,4-Dinitrotoluene	U	365	ug/kg	36.5	365	330
100-02-7	4-Nitrophenol	U	365	ug/kg	73.0	365	830
87-86-5	Pentachlorophenol	U	365	ug/kg	73.0	365	830
129-00-0	Pyrene	U	36.5	ug/kg	11.5	36.5	330
62-53-3	Aniline	U	365	ug/kg	128	365	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	365	ug/kg	73.0	365	330
541-73-1	1,3-Dichlorobenzene	U	365	ug/kg	73.0	365	330
100-51-6	Benzyl alcohol	U	365	ug/kg	109	365	330
95-50-1	1,2-Dichlorobenzene	U	365	ug/kg	73.0	365	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl) ether</i>	U	365	ug/kg	73.0	365	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	365	ug/kg	73.0	365	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	365	ug/kg	146	365	330
67-72-1	Hexachloroethane	U	365	ug/kg	73.0	365	330
98-95-3	Nitrobenzene	U	365	ug/kg	73.0	365	330
78-59-1	Isophorone	U	365	ug/kg	73.0	365	330
88-75-5	2-Nitrophenol	U	365	ug/kg	36.5	365	330
105-67-9	2,4-Dimethylphenol	U	365	ug/kg	73.0	365	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	365	ug/kg	73.0	365	330
65-85-0	Benzoic acid	U	730	ug/kg	182	730	830
91-20-3	Naphthalene	U	36.5	ug/kg	10.9	36.5	330
106-47-8	4-Chloroaniline	U	365	ug/kg	73.0	365	330
87-68-3	Hexachlorobutadiene	U	365	ug/kg	73.0	365	330
91-57-6	2-Methylnaphthalene	U	36.5	ug/kg	7.30	36.5	330
77-47-4	Hexachlorocyclopentadiene	U	365	ug/kg	73.0	365	830
88-06-2	2,4,6-Trichlorophenol	U	365	ug/kg	73.0	365	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

387 Level II

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348010

Client: SSFL001
Date Collected: 05/17/2007 09:52
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8.6
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085S01
Batch ID: 635762
Run Date: 05/21/2007 22:52
Data File: s1e2144.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	365	ug/kg	73.0	365	330
91-58-7	2-Chloronaphthalene	U	36.5	ug/kg	12.8	36.5	330
88-74-4	2-Nitroaniline <i>o-Nitroaniline</i>	U	365	ug/kg	73.0	365	330
99-09-2	3-Nitroaniline <i>m-Nitroaniline</i>	U	365	ug/kg	73.0	365	330
131-11-3	Dimethyl phthalate <i>Dimethylphthalate</i>	U	365	ug/kg	73.0	365	330
606-20-2	2,6-Dinitrotoluene	U	365	ug/kg	36.5	365	330
208-96-8	Accnaphthylcnc	U	36.5	ug/kg	10.9	36.5	330
51-28-5	2,4-Dinitrophenol	U	730	ug/kg	139	730	660
132-64-9	Dibenzofuran	U	365	ug/kg	73.0	365	330
84-66-2	Diethyl phthalate <i>Diethylphthalate</i>	U	365	ug/kg	73.0	365	330
86-73-7	Fluorene	U	36.5	ug/kg	10.9	36.5	330
7005-72-3	4-Chlorophenyl phenyl ether <i>4-Chlorophenylphenylether</i>	U	365	ug/kg	36.5	365	330
534-52-1	4,6-Dinitro-2-methylphenol <i>2-Methyl-4,6-dinitrophenol</i>	U	365	ug/kg	73.0	365	420
100-01-6	4-Nitroaniline <i>p-Nitroaniline</i>	U	365	ug/kg	73.0	365	830
122-39-4	Diphenylamine	U	365	ug/kg	73.0	365	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene <i>1,2-Diphenylhydrazine</i>	U	365	ug/kg	73.0	365	330
101-55-3	4-Bromophenyl phenyl ether <i>4-Bromophenylphenylether</i>	U	365	ug/kg	36.5	365	330
118-74-1	Hexachlorobenzene	U	365	ug/kg	73.0	365	330
85-01-8	Phenanthrene	U	36.5	ug/kg	10.9	36.5	330
120-12-7	Anthracene	U	36.5	ug/kg	7.30	36.5	330
84-74-2	Di-n-butyl phthalate <i>Di-n-butylphthalate</i>	U	365	ug/kg	36.5	365	330
206-44-0	Fluoranthene	U	36.5	ug/kg	10.9	36.5	330
92-87-5	Benzidine	U	365	ug/kg	365	365	660
85-68-7	Butyl benzyl phthalate <i>Butylbenzylphthalate</i>	U	365	ug/kg	73.0	365	330
56-55-3	Benzo(a)anthracene	U	36.5	ug/kg	10.9	36.5	330
91-94-1	3,3'-Dichlorobenzidine	U	365	ug/kg	109	365	830
218-01-9	Chrysene	U	36.5	ug/kg	10.9	36.5	330
117-81-7	Bis(2-ethylhexyl)phthalate <i>bis(2-Ethylhexyl)phthalate</i>	U	182	ug/kg	73.0	182	330
117-84-0	Di-n-octyl phthalate <i>Di-n-octylphthalate</i>	U	365	ug/kg	73.0	365	330
205-99-2	Benzo(b)fluoranthene	U	36.5	ug/kg	10.9	36.5	330
207-08-9	Benzo(k)fluoranthene	U	36.5	ug/kg	10.9	36.5	330
50-32-8	Benzo(a)pyrene	U	36.5	ug/kg	10.9	36.5	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

388 Level V

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348010

Client: SSFL001
Date Collected: 05/17/2007 09:52
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
% Moisture: 8.6

Client ID: FSBS0085S01
Batch ID: 635762
Run Date: 05/21/2007 22:52
Data File: s1e2144.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.5	ug/kg	10.9	36.5	330
53-70-3	Dibenzo(a,h)anthracene	U	36.5	ug/kg	10.9	36.5	420
191-24-2	Benzo(ghi)perylene	U	36.5	ug/kg	10.9	36.5	330
87-65-0	2,6-Dichlorophenol	U	365	ug/kg	73.0	365	330
120-82-1	1,2,4-Trichlorobenzene	U	365	ug/kg	73.0	365	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1290	1820	ug/kg	71	(45%-101%)
Nitrobenzene-d5	1280	1820	ug/kg	70	(45%-101%)
p-Terphenyl-d14	1350	1820	ug/kg	74	(41%-114%)
2,4,6-Tribromophenol	2640	3650	ug/kg	72	(45%-97%)
2-Fluorophenol	2490	3650	ug/kg	68	(35%-98%)
Phenol-d5	2420	3650	ug/kg	66	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

389 Level IV

**Semi-Volatile
Tentatively Identified Compound
Sample Summary**

SDG Number: 186348S	Date Collected: 05/17/2007 09:52	Matrix: SOIL
Lab Sample ID: 186348010	Date Received: 05/18/2007 10:30	%Moisture: 8.6
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0085S01	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635762	Inst: MSD1.I	Dilution: 1
Run Date: 05/21/2007 22:52	Analyst: CAK	Inj. Vol: .5 uL
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>R 1/3 III</i>	2.74	1010	ug/kg		1A
	Unknown <i>R 1/3 B</i>	3.17	223	ug/kg		J
	Unknown <i>NJ</i>	3.34	165	ug/kg		J
7098-22-8	Tetratetracontane	9.07	377	ug/kg	91	NJ
14167-59-0	Tetratriacontane	9.73	457	ug/kg	91	NJ

390 *Level V*

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348011

Client: SSFL001
Date Collected: 05/17/2007 09:55
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 4.2
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085S02
Batch ID: 635762
Run Date: 05/21/2007 23:14
Data File: s1e2145.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: 5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamin</i>	U	348	ug/kg	69.6	348	330
108-95-2	Phenol	U	348	ug/kg	69.6	348	330
95-57-8	2-Chlorophenol	U	348	ug/kg	69.6	348	330
106-46-7	1,4-Dichlorobenzene	U	348	ug/kg	69.6	348	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	348	ug/kg	69.6	348	250
59-50-7	4-Chloro-3-methylphenol	U	348	ug/kg	34.8	348	330
83-32-9	Acenaphthene	U	34.8	ug/kg	11.6	34.8	330
121-14-2	2,4-Dinitrotoluene	U	348	ug/kg	34.8	348	330
100-02-7	4-Nitrophenol	U	348	ug/kg	69.6	348	830
87-86-5	Pentachlorophenol	U	348	ug/kg	69.6	348	830
129-00-0	Pyrene	U	34.8	ug/kg	10.9	34.8	330
62-53-3	Aniline	U	348	ug/kg	122	348	420
111-44-4	Bis(2-chloroethyl) ether <i>bis(2-Chloroethyl) ether</i>	U	348	ug/kg	69.6	348	330
541-73-1	1,3-Dichlorobenzene	U	348	ug/kg	69.6	348	330
100-51-6	Benzyl alcohol	U	348	ug/kg	104	348	330
95-50-1	1,2-Dichlorobenzene	U	348	ug/kg	69.6	348	330
108-60-1	Bis(2-chloroisopropyl) ether <i>bis(2-Chloroisopropyl) ether</i>	U	348	ug/kg	69.6	348	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	348	ug/kg	69.6	348	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	348	ug/kg	139	348	330
67-72-1	Hexachloroethane	U	348	ug/kg	69.6	348	330
98-95-3	Nitrobenzene	U	348	ug/kg	69.6	348	330
78-59-1	Isophorone	U	348	ug/kg	69.6	348	330
88-75-5	2-Nitrophenol	U	348	ug/kg	34.8	348	330
105-67-9	2,4-Dimethylphenol	U	348	ug/kg	69.6	348	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	348	ug/kg	69.6	348	330
65-85-0	Benzoic acid	U	696	ug/kg	174	696	830
91-20-3	Naphthalene	U	34.8	ug/kg	10.4	34.8	330
106-47-8	4-Chloroaniline	U	348	ug/kg	69.6	348	330
87-68-3	Hexachlorobutadiene	U	348	ug/kg	69.6	348	330
91-57-6	2-Methylnaphthalene	U	34.8	ug/kg	6.96	34.8	330
77-47-4	Hexachlorocyclopentadiene	U	348	ug/kg	69.6	348	830
88-06-2	2,4,6-Trichlorophenol	U	348	ug/kg	69.6	348	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

391 Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348011

Client: SSFL001
Date Collected: 05/17/2007 09:55
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 4.2
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085S02
Batch ID: 635762
Run Date: 05/21/2007 23:14
Data File: s1e2145.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	348	ug/kg	69.6	348	330
91-58-7	2-Chloronaphthalene	U	34.8	ug/kg	12.2	34.8	330
88-74-4	2-Nitroaniline	U	348	ug/kg	69.6	348	330
	<i>o-Nitroaniline</i>						
99-09-2	3-Nitroaniline	U	348	ug/kg	69.6	348	330
	<i>m-Nitroaniline</i>						
131-11-3	Dimethyl phthalate	U	348	ug/kg	69.6	348	330
	<i>Dimethylphthalate</i>						
606-20-2	2,6-Dinitrotoluene	U	348	ug/kg	34.8	348	330
208-96-8	Acenaphthylene	U	34.8	ug/kg	10.4	34.8	330
51-28-5	2,4-Dinitrophenol	U	696	ug/kg	132	696	660
132-64-9	Dibenzofuran	U	348	ug/kg	69.6	348	330
84-66-2	Diethyl phthalate	U	348	ug/kg	69.6	348	330
	<i>Diethylphthalate</i>						
86-73-7	Fluorene	U	34.8	ug/kg	10.4	34.8	330
7005-72-3	4-Chlorophenyl phenyl ether	U	348	ug/kg	34.8	348	330
	<i>4-Chlorophenylphenylether</i>						
534-52-1	4,6-Dinitro-2-methylphenol	U	348	ug/kg	69.6	348	420
	<i>2-Methyl-4,6-dinitrophenol</i>						
100-01-6	4-Nitroaniline	U	348	ug/kg	69.6	348	830
	<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	348	ug/kg	69.6	348	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	348	ug/kg	69.6	348	330
	<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenyl phenyl ether	U	348	ug/kg	34.8	348	330
	<i>4-Bromophenylphenylether</i>						
118-74-1	Hexachlorobenzene	U	348	ug/kg	69.6	348	330
85-01-8	Phenanthrene	U	34.8	ug/kg	10.4	34.8	330
120-12-7	Anthracene	U	34.8	ug/kg	6.96	34.8	330
84-74-2	Di-n-butyl phthalate	U	348	ug/kg	34.8	348	330
	<i>Di-n-butylphthalate</i>						
206-44-0	Fluoranthene	U	34.8	ug/kg	10.4	34.8	330
92-87-5	Benzidine	U	348	ug/kg	348	348	660
85-68-7	Butyl benzyl phthalate	U	348	ug/kg	69.6	348	330
	<i>Butylbenzylphthalate</i>						
56-55-3	Benzo(a)anthracene	U	34.8	ug/kg	10.4	34.8	330
91-94-1	3,3'-Dichlorobenzidine	U	348	ug/kg	104	348	830
218-01-9	Chrysene	U	34.8	ug/kg	10.4	34.8	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	174	ug/kg	69.6	174	330
	<i>bis(2-Ethylhexyl)phthalate</i>						
117-84-0	Di-n-octyl phthalate	U	348	ug/kg	69.6	348	330
	<i>Di-n-octylphthalate</i>						
205-99-2	Benzo(b)fluoranthene	U	34.8	ug/kg	10.4	34.8	330
207-08-9	Benzo(k)fluoranthene	U	34.8	ug/kg	10.4	34.8	330
50-32-8	Benzo(a)pyrene	U	34.8	ug/kg	10.4	34.8	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

392 Level V

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348011

Client: SSFL001
Date Collected: 05/17/2007 09:55
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 4.2
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085S02
Batch ID: 635762
Run Date: 05/21/2007 23:14
Data File: s1e2145.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.8	ug/kg	10.4	34.8	330
53-70-3	Dibenzo(a,h)anthracene	U	34.8	ug/kg	10.4	34.8	420
191-24-2	Benzo(ghi)perylene	U	34.8	ug/kg	10.4	34.8	330
87-65-0	2,6-Dichlorophenol	U	348	ug/kg	69.6	348	330
120-82-1	1,2,4-Trichlorobenzene	U	348	ug/kg	69.6	348	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery %	Acceptable Limits
2-Fluorobiphenyl	1190	1740	ug/kg	68	(45%-101%)
Nitrobenzene-d5	1170	1740	ug/kg	67	(45%-101%)
p-Terphenyl-d14	1080	1740	ug/kg	62	(41%-114%)
2,4,6-Tribromophenol	2450	3480	ug/kg	70	(45%-97%)
2-Fluorophenol	2310	3480	ug/kg	66	(35%-98%)
Phenol-d5	2280	3480	ug/kg	65	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

393 Level IV

**Semi-Volatile
Tentatively Identified Compound
Sample Summary**

SDG Number: 1863485	Date Collected: 05/17/2007 09:55	Matrix: SOIL
Lab Sample ID: 186348011	Date Received: 05/18/2007 10:30	% Moisture: 4.2
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0085S02	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635762	Inst: MSD1.I	Dilution: 1
Run Date: 05/21/2007 23:14	Analyst: CAK	Inj. Vol: .5 uL
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>R / * III</i>	2.74	1070	ug/kg		IX
	Unknown <i>R 45/B</i>	3.17	206	ug/kg		J
4291-79-6	Cyclohexane, 1-methyl-2-propyl- <i>↓</i>	3.34	173	ug/kg	87	NJ
7098-21-7	Tritetracontane <i>NJ</i>	9.07	287	ug/kg	90	NJ
112-95-8	Eicosane <i>↓</i>	9.73	276	ug/kg	91	NJ

*MM
6/4/07*

Level IV

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348007

Client: SSFL001
Date Collected: 05/17/2007 09:12
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 7.5

Client ID: FSBS0086S01
Batch ID: 635762
Run Date: 05/21/2007 21:48
Data File: s1e2141.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: 5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD11
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	360	ug/kg	72.1	360	330
108-95-2	Phenol	U	360	ug/kg	72.1	360	330
95-57-8	2-Chlorophenol	U	360	ug/kg	72.1	360	330
106-46-7	1,4-Dichlorobenzene	U	360	ug/kg	72.1	360	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	360	ug/kg	72.1	360	250
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	36.0	360	330
83-32-9	Acenaphthene	U	36.0	ug/kg	12.0	36.0	330
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	36.0	360	330
100-02-7	4-Nitrophenol	U	360	ug/kg	72.1	360	830
87-86-5	Pentachlorophenol	U	360	ug/kg	72.1	360	830
129-00-0	Pyrene	U	36.0	ug/kg	11.3	36.0	330
62-53-3	Aniline	U	360	ug/kg	126	360	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	360	ug/kg	72.1	360	330
541-73-1	1,3-Dichlorobenzene	U	360	ug/kg	72.1	360	330
100-51-6	Benzyl alcohol	U	360	ug/kg	108	360	330
95-50-1	1,2-Dichlorobenzene	U	360	ug/kg	72.1	360	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl) ether</i>	U	360	ug/kg	72.1	360	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	360	ug/kg	72.1	360	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	360	ug/kg	144	360	330
67-72-1	Hexachloroethane	U	360	ug/kg	72.1	360	330
98-95-3	Nitrobenzene	U	360	ug/kg	72.1	360	330
78-59-1	Isophorone	U	360	ug/kg	72.1	360	330
88-75-5	2-Nitrophenol	U	360	ug/kg	36.0	360	330
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	72.1	360	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	360	ug/kg	72.1	360	330
65-85-0	Benzoic acid	U	721	ug/kg	180	721	830
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0	330
106-47-8	4-Chloroaniline	U	360	ug/kg	72.1	360	330
87-68-3	Hexachlorobutadiene	U	360	ug/kg	72.1	360	330
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	7.21	36.0	330
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	72.1	360	830
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	72.1	360	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

395 Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348007

Client: SSFL001
Date Collected: 05/17/2007 09:12
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 7.5
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0086S01
Batch ID: 635762
Run Date: 05/21/2007 21:48
Data File: s1e2141.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	72.1	360	330
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	12.6	36.0	330
88-74-4	2-Nitroaniline	U	360	ug/kg	72.1	360	330
	<i>o-Nitroaniline</i>						
99-09-2	3-Nitroaniline	U	360	ug/kg	72.1	360	330
	<i>m-Nitroaniline</i>						
131-11-3	Dimethyl phthalate	U	360	ug/kg	72.1	360	330
	<i>Dimethylphthalate</i>						
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	36.0	360	330
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0	330
51-28-5	2,4-Dinitrophenol	U	721	ug/kg	137	721	660
132-64-9	Dibenzofuran	U	360	ug/kg	72.1	360	330
84-66-2	Diethyl phthalate	U	360	ug/kg	72.1	360	330
	<i>Diethylphthalate</i>						
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0	330
7005-72-3	4-Chlorophenyl phenyl ether	U	360	ug/kg	36.0	360	330
	<i>4-Chlorophenylphenylether</i>						
534-52-1	4,6-Dinitro-2-methylphenol	U	360	ug/kg	72.1	360	420
	<i>2-Methyl-4,6-dinitrophenol</i>						
100-01-6	4-Nitroaniline	U	360	ug/kg	72.1	360	830
	<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	360	ug/kg	72.1	360	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	360	ug/kg	72.1	360	330
	<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenyl phenyl ether	U	360	ug/kg	36.0	360	330
	<i>4-Bromophenylphenylether</i>						
118-74-1	Hexachlorobenzene	U	360	ug/kg	72.1	360	330
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0	330
120-12-7	Anthracene	U	36.0	ug/kg	7.21	36.0	330
84-74-2	Di-n-butyl phthalate	U	360	ug/kg	36.0	360	330
	<i>Di-n-butylphthalate</i>						
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0	330
92-87-5	Benzidine	U	360	ug/kg	360	360	660
85-68-7	Butyl benzyl phthalate	U	360	ug/kg	72.1	360	330
	<i>Butylbenzylphthalate</i>						
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0	330
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360	830
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	180	ug/kg	72.1	180	330
	<i>bis(2-Ethylhexyl)phthalate</i>						
117-84-0	Di-n-octyl phthalate	U	360	ug/kg	72.1	360	330
	<i>Di-n-octylphthalate</i>						
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0	330
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0	330
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

396 Level V

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348007

Client: SSFL001
Date Collected: 05/17/2007 09:12
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 7.5
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0086S01
Batch ID: 635762
Run Date: 05/21/2007 21:48
Data File: s1e2141.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0	330
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0	420
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0	330
87-65-0	2,6-Dichlorophenol	U	360	ug/kg	72.1	360	330
120-82-1	1,2,4-Trichlorobenzene	U	360	ug/kg	72.1	360	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1210	1800	ug/kg	67	(45%-101%)
Nitrobenzene-d5	1170	1800	ug/kg	65	(45%-101%)
p-Terphenyl-d14	1230	1800	ug/kg	68	(41%-114%)
2,4,6-Tribromophenol	2540	3600	ug/kg	71	(45%-97%)
2-Fluorophenol	2290	3600	ug/kg	64	(35%-98%)
Phenol-d5	2250	3600	ug/kg	62	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

397 Level IV

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 1863485	Date Collected: 05/17/2007 09:12	Matrix: SOIL
Lab Sample ID: 186348007	Date Received: 05/18/2007 10:30	%Moisture: 7.5
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0086S01	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635762	Inst: MSD1.1	Dilution: 1
Run Date: 05/21/2007 21:48	Analyst: CAK	Inj. Vol: .5 uL
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
630-02-4	Octacosane <i>NJ</i>	10.67	162	ug/kg	87	N1
	Unknown Aldol Condensate <i>R/* TIC</i>	2.74	1050	ug/kg		JA
	Unknown <i>R → B</i>	3.17	225	ug/kg		J
4291-79-6	Cyclohexane, 1-methyl-2-propyl- <i>↓</i>	3.34	163	ug/kg	83	N1
112-95-8	Eicosane <i>NJ</i>	9.07	220	ug/kg	97	N1

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Level II

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348008

Client: SSFL001
Date Collected: 05/17/2007 09:17
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 9.1
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0086S02
Batch ID: 635762
Run Date: 05/21/2007 22:10
Data File: s1e2142.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	367	ug/kg	73.3	367	330
108-95-2	Phenol	U	367	ug/kg	73.3	367	330
95-57-8	2-Chlorophenol	U	367	ug/kg	73.3	367	330
106-46-7	1,4-Dichlorobenzene	U	367	ug/kg	73.3	367	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	367	ug/kg	73.3	367	250
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	36.7	367	330
83-32-9	Acenaphthene	U	36.7	ug/kg	12.2	36.7	330
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	36.7	367	330
100-02-7	4-Nitrophenol	U	367	ug/kg	73.3	367	830
87-86-5	Pentachlorophenol	U	367	ug/kg	73.3	367	830
129-00-0	Pyrene	U	36.7	ug/kg	11.5	36.7	330
62-53-3	Aniline	U	367	ug/kg	128	367	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	367	ug/kg	73.3	367	330
541-73-1	1,3-Dichlorobenzene	U	367	ug/kg	73.3	367	330
100-51-6	Benzyl alcohol	U	367	ug/kg	110	367	330
95-50-1	1,2-Dichlorobenzene	U	367	ug/kg	73.3	367	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl)ether</i>	U	367	ug/kg	73.3	367	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	367	ug/kg	73.3	367	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	367	ug/kg	147	367	330
67-72-1	Hexachloroethane	U	367	ug/kg	73.3	367	330
98-95-3	Nitrobenzene	U	367	ug/kg	73.3	367	330
78-59-1	Isophorone	U	367	ug/kg	73.3	367	330
88-75-5	2-Nitrophenol	U	367	ug/kg	36.7	367	330
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	73.3	367	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	367	ug/kg	73.3	367	330
65-85-0	Benzoic acid	U	733	ug/kg	183	733	830
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7	330
106-47-8	4-Chloroaniline	U	367	ug/kg	73.3	367	330
87-68-3	Hexachlorobutadiene	U	367	ug/kg	73.3	367	330
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	7.33	36.7	330
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	73.3	367	830
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	73.3	367	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

399 Level I

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348008

Client: SSFL001
Date Collected: 05/17/2007 09:17
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 9.1
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0086S02
Batch ID: 635762
Run Date: 05/21/2007 22:10
Data File: s1e2142.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	73.3	367	330
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	12.8	36.7	330
88-74-4	2-Nitroaniline	U	367	ug/kg	73.3	367	330
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	367	ug/kg	73.3	367	330
	<i>m</i> -Nitroaniline						
131-11-3	Dimethyl phthalate	U	367	ug/kg	73.3	367	330
	<i>Dimethylphthalate</i>						
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	36.7	367	330
208-96-8	Accenaphthylene	U	36.7	ug/kg	11.0	36.7	330
51-28-5	2,4-Dinitrophenol	U	733	ug/kg	139	733	660
132-64-9	Dibenzofuran	U	367	ug/kg	73.3	367	330
84-66-2	Diethyl phthalate	U	367	ug/kg	73.3	367	330
	<i>Diethylphthalate</i>						
86-73-7	Fluorene	U	36.7	ug/kg	11.0	36.7	330
7005-72-3	4-Chlorophenyl phenyl ether	U	367	ug/kg	36.7	367	330
	<i>4-Chlorophenylphenylether</i>						
534-52-1	4,6-Dinitro-2-methylphenol	U	367	ug/kg	73.3	367	420
	<i>2-Methyl-4,6-dinitrophenol</i>						
100-01-6	4-Nitroaniline	U	367	ug/kg	73.3	367	830
	<i>p</i> -Nitroaniline						
122-39-4	Diphenylamine	U	367	ug/kg	73.3	367	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	367	ug/kg	73.3	367	330
	<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenyl phenyl ether	U	367	ug/kg	36.7	367	330
	<i>4-Bromophenylphenylether</i>						
118-74-1	Hexachlorobenzene	U	367	ug/kg	73.3	367	330
85-01-8	Phenanthrene	U	36.7	ug/kg	11.0	36.7	330
120-12-7	Anthracene	U	36.7	ug/kg	7.33	36.7	330
84-74-2	Di-n-butyl phthalate	U	367	ug/kg	36.7	367	330
	<i>Di-n-butylphthalate</i>						
206-44-0	Fluoranthene	U	36.7	ug/kg	11.0	36.7	330
92-87-5	Benzidine	U	367	ug/kg	367	367	660
85-68-7	Butyl benzyl phthalate	U	367	ug/kg	73.3	367	330
	<i>Butylbenzylphthalate</i>						
56-55-3	Benzo(a)anthracene	U	36.7	ug/kg	11.0	36.7	330
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367	830
218-01-9	Chrysene	U	36.7	ug/kg	11.0	36.7	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	183	ug/kg	73.3	183	330
	<i>bis(2-Ethylhexyl)phthalate</i>						
117-84-0	Di-n-octyl phthalate	U	367	ug/kg	73.3	367	330
	<i>Di-n-octylphthalate</i>						
205-99-2	Benzo(b)fluoranthene	U	36.7	ug/kg	11.0	36.7	330
207-08-9	Benzo(k)fluoranthene	U	36.7	ug/kg	11.0	36.7	330
50-32-8	Benzo(a)pyrene	U	36.7	ug/kg	11.0	36.7	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

400 Level V

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348008

Client: SSFL001
Date Collected: 05/17/2007 09:17
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 9.1

Client ID: FSBS0086S02
Batch ID: 635762
Run Date: 05/21/2007 22:10
Data File: s1e2142.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.7	ug/kg	11.0	36.7	330
53-70-3	Dibenzo(a,h)anthracene	U	36.7	ug/kg	11.0	36.7	420
191-24-2	Benzo(ghi)perylene	U	36.7	ug/kg	11.0	36.7	330
87-65-0	2,6-Dichlorophenol	U	367	ug/kg	73.3	367	330
120-82-1	1,2,4-Trichlorobenzene	U	367	ug/kg	73.3	367	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1170	1830	ug/kg	64	(45%-101%)
Nitrobenzene-d5	1160	1830	ug/kg	63	(45%-101%)
p-Terphenyl-d14	1130	1830	ug/kg	62	(41%-114%)
2,4,6-Tribromophenol	2350	3670	ug/kg	64	(45%-97%)
2-Fluorophenol	2330	3670	ug/kg	64	(35%-98%)
Phenol-d5	2320	3670	ug/kg	63	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

401 Level V

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186348S	Date Collected: 05/17/2007 09:17	Matrix: SOIL
Lab Sample ID: 186348008	Date Received: 05/18/2007 10:30	%Moisture: 9.1
	Client: SSFL001	Project: SSFL00507
Client ID: FSBS0086502	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635762	Inst: MSD1.I	Dilution: 1
Run Date: 05/21/2007 22:10	Analyst: CAK	Inj. Vol: .5 uL
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>R * III</i>	2.74	941	ug/kg		JA
	Unknown <i>R III / B</i>	3.17	182	ug/kg		J
4291-79-6	Cyclohexane, 1-methyl-2-propyl- <i>↓</i>	3.34	158	ug/kg	83	NJ

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6/4/07

402 Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348012

Client: SSFL001
Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 7.3

Client ID: FSBS0087D01
Batch ID: 635762
Run Date: 05/21/2007 23:35
Data File: s1e2146.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	360	ug/kg	71.9	360	330
108-95-2	Phenol	U	360	ug/kg	71.9	360	330
95-57-8	2-Chlorophenol	U	360	ug/kg	71.9	360	330
106-46-7	1,4-Dichlorobenzene	U	360	ug/kg	71.9	360	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	360	ug/kg	71.9	360	250
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	36.0	360	330
83-32-9	Acenaphthene	U	36.0	ug/kg	12.0	36.0	330
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	36.0	360	330
100-02-7	4-Nitrophenol	U	360	ug/kg	71.9	360	830
87-86-5	Pentachlorophenol	U	360	ug/kg	71.9	360	830
129-00-0	Pyrene	U	36.0	ug/kg	11.3	36.0	330
62-53-3	Aniline	U	360	ug/kg	126	360	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	360	ug/kg	71.9	360	330
541-73-1	1,3-Dichlorobenzene	U	360	ug/kg	71.9	360	330
100-51-6	Benzyl alcohol	U	360	ug/kg	108	360	330
95-50-1	1,2-Dichlorobenzene	U	360	ug/kg	71.9	360	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl) ether</i>	U	360	ug/kg	71.9	360	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	360	ug/kg	71.9	360	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	360	ug/kg	144	360	330
67-72-1	Hexachloroethane	U	360	ug/kg	71.9	360	330
98-95-3	Nitrobenzene	U	360	ug/kg	71.9	360	330
78-59-1	Isophorone	U	360	ug/kg	71.9	360	330
88-75-5	2-Nitrophenol	U	360	ug/kg	36.0	360	330
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	71.9	360	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	360	ug/kg	71.9	360	330
65-85-0	Benzoic acid	U	719	ug/kg	180	719	830
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0	330
106-47-8	4-Chloroaniline	U	360	ug/kg	71.9	360	330
87-68-3	Hexachlorobutadiene	U	360	ug/kg	71.9	360	330
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	7.19	36.0	330
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	71.9	360	830
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	71.9	360	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

403 Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348012

Client: SSFL001
Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 7.3
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD11
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0087D01
Batch ID: 635762
Run Date: 05/21/2007 23:35
Data File: s1e2146.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	71.9	360	330
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	12.6	36.0	330
88-74-4	2-Nitroaniline	U	360	ug/kg	71.9	360	330
99-09-2	<i>o</i> -Nitroaniline	U	360	ug/kg	71.9	360	330
	<i>m</i> -Nitroaniline						
131-11-3	Dimethyl phthalate	U	360	ug/kg	71.9	360	330
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	36.0	360	330
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0	330
51-28-5	2,4-Dinitrophenol	U	719	ug/kg	137	719	660
133-64-9	Dibenzofuran	U	360	ug/kg	71.9	360	330
84-66-2	Diethyl phthalate	U	360	ug/kg	71.9	360	330
86-73-7	Diethylphthalate	U	36.0	ug/kg	10.8	36.0	330
	Fluorene						
7005-72-3	4-Chlorophenyl phenyl ether	U	360	ug/kg	36.0	360	330
534-52-1	<i>4</i> -Chlorophenylphenylether	U	360	ug/kg	71.9	360	420
	4,6-Dinitro-2-methylphenol						
100-01-6	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	71.9	360	830
122-39-4	4-Nitroaniline	U	360	ug/kg	71.9	360	330
122-39-4	<i>p</i> -Nitroaniline	U	360	ug/kg	71.9	360	330
122-66-7	Diphenylamine	U	360	ug/kg	71.9	360	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	360	ug/kg	71.9	360	330
101-55-3	1,2-Diphenylhydrazine	U	360	ug/kg	36.0	360	330
118-74-1	4-Bromophenyl phenyl ether	U	360	ug/kg	71.9	360	330
118-74-1	<i>4</i> -Bromophenylphenylether	U	360	ug/kg	71.9	360	330
118-74-1	Hexachlorobenzene	U	360	ug/kg	10.8	36.0	330
85-01-8	Phenanthrene	U	36.0	ug/kg	7.19	36.0	330
120-12-7	Anthracene	U	36.0	ug/kg	36.0	360	330
84-74-2	Di- <i>n</i> -butyl phthalate	U	360	ug/kg	36.0	360	330
206-44-0	Di- <i>n</i> -butylphthalate	U	36.0	ug/kg	10.8	36.0	330
	Fluoranthene						
92-87-5	Benzidine	U	360	ug/kg	360	360	660
85-68-7	Butyl benzyl phthalate	U	360	ug/kg	71.9	360	330
56-55-3	Butylbenzylphthalate	U	36.0	ug/kg	10.8	36.0	330
91-94-1	Benzo(a)anthracene	U	360	ug/kg	108	360	830
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	10.8	36.0	330
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	180	ug/kg	71.9	180	330
117-81-7	bis(2-Ethylhexyl)phthalate	U	360	ug/kg	71.9	360	330
117-84-0	Di- <i>n</i> -octyl phthalate	U	360	ug/kg	10.8	36.0	330
205-99-2	Di- <i>n</i> -octylphthalate	U	36.0	ug/kg	10.8	36.0	330
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0	330
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0	330
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348012

Client: SSFL001
Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 7.3

Client ID: FSBS0087D01
Batch ID: 635762
Run Date: 05/21/2007 23:35
Data File: s1e2146.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene <i>2/D</i>	U	36.0	ug/kg	10.8	36.0	330
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0	420
191-24-2	Benzo(ghi)perylene <i>↓</i>	U	36.0	ug/kg	10.8	36.0	330
87-65-0	2,6-Dichlorophenol <i>u</i>	U	360	ug/kg	71.9	360	330
120-82-1	1,2,4-Trichlorobenzene <i>u</i>	U	360	ug/kg	71.9	360	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1310	1800	ug/kg	73	(45%-101%)
Nitrobenzene-d5	1300	1800	ug/kg	72	(45%-101%)
p-Terphenyl-d14	1160	1800	ug/kg	64	(41%-114%)
2,4,6-Tribromophenol	2690	3600	ug/kg	75	(45%-97%)
2-Fluorophenol	2580	3600	ug/kg	72	(35%-98%)
Phenol-d5	2530	3600	ug/kg	70	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

405 Level *VI*

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186348S	Date Collected: 05/17/2007 10:25	Matrix: SOIL
Lab Sample ID: 186348012	Date Received: 05/18/2007 10:30	% Moisture: 7.3
	Client: SSF1.001	Project: SSF1.00507
Client ID: FSBS0087D01	Method: SW846 8270C	SOP Ref: GI-GA-1.009
Batch ID: 635762	Inst: MSD11	Dilution: 1
Run Date: 05/21/2007 23:35	Analyst: CAK	Inj. Vol: .5 ul
Prep Date: 05/21/2007 11:00	Aliquot: 30 g	Final Volume: 1 ml

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown <i>NJ</i>	11.63	176	ug/kg		
	Unknown Aldol Condensate <i>R/* III</i>	2.74	1040	ug/kg		15
	Unknown <i>RT → 13</i>	3.17	194	ug/kg		1
4291-79-6	Cyclohexane, 1-methyl-2-propyl- <i>↓</i>	3.34	169	ug/kg	90	N
	Unknown Sulfur <i>R/* III</i>	8.82	198	ug/kg		1
	Unknown <i>NJ</i>	8.89	147	ug/kg		1
7098-21-7	Tritetracontane <i>↓</i>	9.07	350	ug/kg	91	N
112-95-8	Eicosane <i>↓</i>	9.73	428	ug/kg	95	N

mm 6/4/07

LEVEL V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348013

Client: SSFL001
Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 5.9
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD11
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0087S01
Batch ID: 635762
Run Date: 05/21/2007 23:57
Data File: s1e2147.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosodimethylamine</i>	U	354	ug/kg	70.8	354	330
108-95-2	Phenol	U	354	ug/kg	70.8	354	330
95-57-8	2-Chlorophenol	U	354	ug/kg	70.8	354	330
106-46-7	1,4-Dichlorobenzene	U	354	ug/kg	70.8	354	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	354	ug/kg	70.8	354	250
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	35.4	354	330
83-32-9	Acenaphthene	U	35.4	ug/kg	11.8	35.4	330
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	35.4	354	330
100-02-7	4-Nitrophenol	U	354	ug/kg	70.8	354	830
87-86-5	Pentachlorophenol	U	354	ug/kg	70.8	354	830
129-00-0	Pyrene	U	35.4	ug/kg	11.1	35.4	330
62-53-3	Aniline	U	354	ug/kg	124	354	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	354	ug/kg	70.8	354	330
541-73-1	1,3-Dichlorobenzene	U	354	ug/kg	70.8	354	330
100-51-6	Benzyl alcohol	U	354	ug/kg	106	354	330
95-50-1	1,2-Dichlorobenzene	U	354	ug/kg	70.8	354	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl)ether</i>	U	354	ug/kg	70.8	354	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	354	ug/kg	70.8	354	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	354	ug/kg	142	354	330
67-72-1	Hexachloroethane	U	354	ug/kg	70.8	354	330
98-95-3	Nitrobenzene	U	354	ug/kg	70.8	354	330
78-59-1	Isophorone	U	354	ug/kg	70.8	354	330
88-75-5	2-Nitrophenol	U	354	ug/kg	35.4	354	330
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	70.8	354	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	354	ug/kg	70.8	354	330
65-85-0	Benzoic acid	U	708	ug/kg	177	708	830
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4	330
106-47-8	4-Chloroaniline	U	354	ug/kg	70.8	354	330
87-68-3	Hexachlorobutadiene	U	354	ug/kg	70.8	354	330
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	7.08	35.4	330
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	70.8	354	830
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	70.8	354	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

409 Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348013

Client: SSFL001
Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 5.9

Client ID: FSBS0087S01
Batch ID: 635762
Run Date: 05/21/2007 23:57
Data File: s1e2147.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	70.8	354	330
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	12.4	35.4	330
88-74-4	2-Nitroaniline	U	354	ug/kg	70.8	354	330
99-09-2	3-Nitroaniline	U	354	ug/kg	70.8	354	330
131-11-3	Dimethyl phthalate	U	354	ug/kg	70.8	354	330
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	35.4	354	330
208-96-8	Acenaphthylene	U	35.4	ug/kg	10.6	35.4	330
51-28-5	2,4-Dinitrophenol	U	708	ug/kg	135	708	660
132-64-9	Dibenzofuran	U	354	ug/kg	70.8	354	330
84-66-2	Diethyl phthalate	U	354	ug/kg	70.8	354	330
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4	330
7005-72-3	4-Chlorophenyl phenyl ether	U	354	ug/kg	35.4	354	330
534-52-1	4,6-Dinitro-2-methylphenol	U	354	ug/kg	70.8	354	420
100-01-6	4-Nitroaniline	U	354	ug/kg	70.8	354	830
122-39-4	Diphenylamine	U	354	ug/kg	70.8	354	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	354	ug/kg	70.8	354	330
101-55-3	4-Bromophenyl phenyl ether	U	354	ug/kg	35.4	354	330
118-74-1	Hexachlorobenzene	U	354	ug/kg	70.8	354	330
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4	330
120-12-7	Anthracene	U	35.4	ug/kg	7.08	35.4	330
84-74-2	Di-n-butyl phthalate	U	354	ug/kg	35.4	354	330
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4	330
92-87-5	Benzidine	U	354	ug/kg	354	354	660
85-68-7	Butyl benzyl phthalate	U	354	ug/kg	70.8	354	330
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4	330
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354	830
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	177	ug/kg	70.8	177	330
117-84-0	Di-n-octyl phthalate	U	354	ug/kg	70.8	354	330
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4	330
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4	330
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

410 Level V

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348013

Client: SSFL001
Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 5.9
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0087S01
Batch ID: 635762
Run Date: 05/21/2007 23:57
Data File: sle2147.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4	330
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4	420
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4	330
87-65-0	2,6-Dichlorophenol	U	354	ug/kg	70.8	354	330
120-82-1	1,2,4-Trichlorobenzene	U	354	ug/kg	70.8	354	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1200	1770	ug/kg	68	(45%-101%)
Nitrobenzene-d5	1210	1770	ug/kg	68	(45%-101%)
p-Terphenyl-d14	1160	1770	ug/kg	66	(41%-114%)
2,4,6-Tribromophenol	2500	3540	ug/kg	71	(45%-97%)
2-Fluorophenol	2400	3540	ug/kg	68	(35%-98%)
Phenol-d5	2220	3540	ug/kg	63	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

411 Level V

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348013

Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30
Client: SSF1.001

Matrix: SOIL
% Moisture: 5.9
Project: SSE1.00507

Client ID: FSR50087801
Batch ID: 635762
Run Date: 05/21/2007 13:57
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Inst: MSD1.1
Analyst: CAK
Aliquot: 30 g

SOP Ref: GL-CIA-E-009
Dilution: 1
Inj. Vol: .5 ul
Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Flt	Qual
	Unknown Aldol Condensate <i>B/*</i>	2.74	1090	ug/kg		
	Unknown Alcohol <i>N3</i>	3.17	205	ug/kg		
4301-79-6	Cyclohexane, 1-methyl-2-propyl <i>R-10</i>	3.34	178	ug/kg	87	23
630-03-4	Octacosane <i>N3</i>	9.07	266	ug/kg	91	23

mm 6/4/07

LEVEL V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348014

Client: SSFL001
Date Collected: 05/17/2007 10:31
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 16.2
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0087S02
Batch ID: 635762
Run Date: 05/22/2007 00:19
Data File: s1e2148.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	398	ug/kg	79.6	398	330
108-95-2	Phenol	U	398	ug/kg	79.6	398	330
95-57-8	2-Chlorophenol	U	398	ug/kg	79.6	398	330
106-46-7	1,4-Dichlorobenzene	U	398	ug/kg	79.6	398	330
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	398	ug/kg	79.6	398	250
59-50-7	4-Chloro-3-methylphenol	U	398	ug/kg	39.8	398	330
83-32-9	Acenaphthene	U	39.8	ug/kg	13.3	39.8	330
121-14-2	2,4-Dinitrotoluene	U	398	ug/kg	39.8	398	330
100-02-7	4-Nitrophenol	U	398	ug/kg	79.6	398	830
87-86-5	Pentachlorophenol	U	398	ug/kg	79.6	398	830
129-00-0	Pyrene	U	39.8	ug/kg	12.5	39.8	330
62-53-3	Aniline	U	398	ug/kg	139	398	420
111-44-4	Bis(2-chloroethyl)ether <i>bis(2-Chloroethyl) ether</i>	U	398	ug/kg	79.6	398	330
541-73-1	1,3-Dichlorobenzene	U	398	ug/kg	79.6	398	330
100-51-6	Benzyl alcohol	U	398	ug/kg	119	398	330
95-50-1	1,2-Dichlorobenzene	U	398	ug/kg	79.6	398	330
108-60-1	Bis(2-chloroisopropyl)ether <i>bis(2-Chloroisopropyl) ether</i>	U	398	ug/kg	79.6	398	330
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	398	ug/kg	79.6	398	330
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	398	ug/kg	159	398	330
67-72-1	Hexachloroethane	U	398	ug/kg	79.6	398	330
98-95-3	Nitrobenzene	U	398	ug/kg	79.6	398	330
78-59-1	Isophorone	U	398	ug/kg	79.6	398	330
88-75-5	2-Nitrophenol	U	398	ug/kg	39.8	398	330
105-67-9	2,4-Dimethylphenol	U	398	ug/kg	79.6	398	330
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	398	ug/kg	79.6	398	330
65-85-0	Benzoic acid	U	796	ug/kg	199	796	830
91-20-3	Naphthalene	U	39.8	ug/kg	11.9	39.8	330
106-47-8	4-Chloroaniline	U	398	ug/kg	79.6	398	330
87-68-3	Hexachlorobutadiene	U	398	ug/kg	79.6	398	330
91-57-6	2-Methylnaphthalene	U	39.8	ug/kg	7.96	39.8	330
77-47-4	Hexachlorocyclopentadiene	U	398	ug/kg	79.6	398	830
88-06-2	2,4,6-Trichlorophenol	U	398	ug/kg	79.6	398	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

416 Level V

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348014

Client: SSFL001
Date Collected: 05/17/2007 10:31
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 16.2

Client ID: FSBS0087S02
Batch ID: 635762
Run Date: 05/22/2007 00:19
Data File: s1e2148.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
95-95-4	2,4,5-Trichlorophenol	U	398	ug/kg	79.6	398	330
91-58-7	2-Chloronaphthalene	U	39.8	ug/kg	13.9	39.8	330
88-74-4	2-Nitroaniline	U	398	ug/kg	79.6	398	330
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	398	ug/kg	79.6	398	330
	<i>m</i> -Nitroaniline						
131-11-3	Dimethyl phthalate	U	398	ug/kg	79.6	398	330
	<i>Di</i> methylphthalate						
606-20-2	2,6-Dinitrotoluene	U	398	ug/kg	39.8	398	330
208-96-8	Acenaphthylene	U	39.8	ug/kg	11.9	39.8	330
51-28-5	2,4-Dinitrophenol	U	796	ug/kg	151	796	660
132-64-9	Dibenzofuran	U	398	ug/kg	79.6	398	330
84-66-2	Diethyl phthalate	U	398	ug/kg	79.6	398	330
	<i>Di</i> ethylphthalate						
86-73-7	Fluorene	U	39.8	ug/kg	11.9	39.8	330
7005-72-3	4-Chlorophenyl phenyl ether	U	398	ug/kg	39.8	398	330
	<i>4</i> -Chlorophenylphenylether						
534-52-1	4,6-Dinitro-2-methylphenol	U	398	ug/kg	79.6	398	420
	<i>2</i> -Methyl-4,6-dinitrophenol						
100-01-6	4-Nitroaniline	U	398	ug/kg	79.6	398	830
	<i>p</i> -Nitroaniline						
122-39-4	Diphenylamine	U	398	ug/kg	79.6	398	330
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	398	ug/kg	79.6	398	330
	<i>1,2</i> -Diphenylhydrazine						
101-55-3	4-Bromophenyl phenyl ether	U	398	ug/kg	39.8	398	330
	<i>4</i> -Bromophenylphenylether						
118-74-1	Hexachlorobenzene	U	398	ug/kg	79.6	398	330
85-01-8	Phenanthrene	U	39.8	ug/kg	11.9	39.8	330
120-12-7	Anthracene	U	39.8	ug/kg	7.96	39.8	330
84-74-2	Di- <i>n</i> -butyl phthalate	U	398	ug/kg	39.8	398	330
	<i>Di-n</i> -butylphthalate						
206-44-0	Fluoranthene	U	39.8	ug/kg	11.9	39.8	330
92-87-5	Benzidine	U	398	ug/kg	398	398	660
85-68-7	Butyl benzyl phthalate	U	398	ug/kg	79.6	398	330
	<i>Butylbenzyl</i> phthalate						
56-55-3	Benzo(a)anthracene	U	39.8	ug/kg	11.9	39.8	330
91-94-1	3,3'-Dichlorobenzidine	U	398	ug/kg	119	398	830
218-01-9	Chrysene	U	39.8	ug/kg	11.9	39.8	330
117-81-7	Bis(2-ethylhexyl)phthalate	U	199	ug/kg	79.6	199	330
	<i>bis</i> 2-Ethylhexylphthalate						
117-84-0	Di- <i>n</i> -octyl phthalate	U	398	ug/kg	79.6	398	330
	<i>Di-n</i> -octylphthalate						
205-99-2	Benzo(b)fluoranthene	U	39.8	ug/kg	11.9	39.8	330
207-08-9	Benzo(k)fluoranthene	U	39.8	ug/kg	11.9	39.8	330
50-32-8	Benzo(a)pyrene	U	39.8	ug/kg	11.9	39.8	330

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

417 Level V

**Semi-Volatile
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348014

Client: SSFL001
Date Collected: 05/17/2007 10:31
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 16.2
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-009
Instrument: MSD1.1
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0087S02
Batch ID: 635762
Run Date: 05/22/2007 00:19
Data File: s1e2148.d
Prep Batch: 635761
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Analyst: CAK
Inj. Vol: .5 uL
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.8	ug/kg	11.9	39.8	330
53-70-3	Dibenzo(a,h)anthracene	U	39.8	ug/kg	11.9	39.8	420
191-24-2	Benzo(ghi)perylene	U	39.8	ug/kg	11.9	39.8	330
87-65-0	2,6-Dichlorophenol	U	398	ug/kg	79.6	398	330
120-82-1	1,2,4-Trichlorobenzene	U	398	ug/kg	79.6	398	330

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	1470	1990	ug/kg	74	(45%-101%)
Nitrobenzene-d5	1440	1990	ug/kg	72	(45%-101%)
p-Terphenyl-d14	1420	1990	ug/kg	71	(41%-114%)
2,4,6-Tribromophenol	3170	3980	ug/kg	80	(45%-97%)
2-Fluorophenol	2840	3980	ug/kg	71	(35%-98%)
Phenol-d5	2780	3980	ug/kg	70	(45%-95%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

418 Level V

Semi-Volatile
Tentatively Identified Compound
Sample Summary

SDG Number: 186348S
Lab Sample ID: 186348014

Date Collected: 05/17/2007 10:31
Date Received: 05/18/2007 10:30
Client: SSFL001

Matrix: SOIL
%Moisture: 16.2
Project: SSFL00507

Client ID: FSBS0087S02
Batch ID: 635762
Run Date: 05/22/2007 00:19
Prep Date: 05/21/2007 11:00

Method: SW846 8270C
Inst: MSD1.I
Analyst: CAK
Aliquot: 30 g

SOP Ref: GL-OA-E-009
Dilution: 1
Inj. Vol: .5 uL
Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown Aldol Condensate <i>B / # III</i>	2.74	1210	ug/kg		JA
	Unknown <i>NJ</i>	7.79	339	ug/kg		J
	Unknown	7.82	355	ug/kg		J
86917-79-5	6-Isopropenyl-4,8a-dimethyl-4a,5,6,7,8,8	7.85	329	ug/kg	86	NJ
	Unknown	7.88	326	ug/kg		J
	Unknown	7.9	320	ug/kg		J
	Unknown	7.92	452	ug/kg		J
	Unknown	7.99	564	ug/kg		J
	Unknown	8.18	397	ug/kg		J
	Unknown	8.35	306	ug/kg		J
	Unknown	8.42	303	ug/kg		J
	Unknown	8.55	557	ug/kg		J
	Unknown	8.83	584	ug/kg		J
	Unknown	8.9	530	ug/kg		J
	Unknown	8.93	310	ug/kg		J
	Unknown	8.99	353	ug/kg		J
	Unknown	9.09	440	ug/kg		J

419 Level *V*

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348W
Lab Sample ID: 186352001

Client: SSFL001
Date Collected: 05/17/2007 10:59
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: WATER

Client ID: FSQW0005E01
Batch ID: 635749
Run Date: 05/20/2007 19:41
Data File: s2e2112.d
Prep Batch: 635748
Prep Date: 05/19/2007 15:59

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3510C
Aliquot: 1060 mL

Prep Basis: As Received
SOP Ref: GL-OA-E-009
Instrument: MSD2.1
Dilution: 1
Prep SOP Ref: GL-OA-E-013
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
62-75-9	N-Nitrosodimethylamine <i>N-Methyl-N-nitrosomethylamine</i>	U	9.43	ug/L	1.89	9.43	20.0
108-95-2	Phenol	U	9.43	ug/L	0.943	9.43	10.0
95-57-8	2-Chlorophenol	U	9.43	ug/L	1.89	9.43	10.0
106-46-7	1,4-Dichlorobenzene	U	9.43	ug/L	1.89	9.43	10.0
621-64-7	N-Nitrosodi-n-propylamine <i>N-Nitrosodipropylamine</i>	U	9.43	ug/L	1.89	9.43	10.0
59-50-7	4-Chloro-3-methylphenol	U	9.43	ug/L	1.89	9.43	20.0
83-32-9	Acenaphthene	U	0.943	ug/L	0.292	0.943	10.0
121-14-2	2,4-Dinitrotoluene	U	9.43	ug/L	1.89	9.43	10.0
100-02-7	4-Nitrophenol	U	9.43	ug/L	1.89	9.43	20.0
87-86-5	Pentachlorophenol	U	9.43	ug/L	1.89	9.43	20.0
129-00-0	Pyrene	U	0.943	ug/L	0.283	0.943	10.0
62-53-3	Aniline	U	9.43	ug/L	2.36	9.43	10.0
111-44-4	Bis(2-chloroethyl) ether <i>bis(2-Chloroethyl) ether</i>	U	9.43	ug/L	1.89	9.43	10.0
541-73-1	1,3-Dichlorobenzene	U	9.43	ug/L	1.89	9.43	10.0
100-51-6	Benzyl alcohol	U	9.43	ug/L	1.89	9.43	20.0
95-50-1	1,2-Dichlorobenzene	U	9.43	ug/L	1.89	9.43	10.0
108-60-1	Bis(2-chloroisopropyl) ether <i>bis(2-Chloroisopropyl) ether</i>	U	9.43	ug/L	1.89	9.43	10.0
95-48-7	2-Methylphenol <i>o-Cresol</i>	U	9.43	ug/L	1.89	9.43	10.0
65794-96-9	4-Methylphenol <i>m,p-Cresols</i>	U	9.43	ug/L	2.83	9.43	10.0
67-72-1	Hexachloroethane	U	9.43	ug/L	1.89	9.43	10.0
98-95-3	Nitrobenzene	U	9.43	ug/L	2.83	9.43	20.0
78-59-1	Isophorone	U	9.43	ug/L	1.89	9.43	10.0
88-75-5	2-Nitrophenol	U	9.43	ug/L	1.89	9.43	10.0
105-67-9	2,4-Dimethylphenol	U	9.43	ug/L	1.89	9.43	20.0
111-91-1	Bis(2-chloroethoxy)methane <i>bis(2-Chloroethoxy)methane</i>	U	9.43	ug/L	2.83	9.43	10.0
120-83-2	2,4-Dichlorophenol	U	9.43	ug/L	1.89	9.43	10.0
65-85-0	Benzoic acid	U	18.9	ug/L	5.66	18.9	20.0
91-20-3	Naphthalene	U	0.943	ug/L	0.283	0.943	10.0
106-47-8	4-Chloroaniline	U	9.43	ug/L	1.89	9.43	10.0
87-68-3	Hexachlorobutadiene	U	9.43	ug/L	1.89	9.43	10.0
91-57-6	2-Methylnaphthalene	U	0.943	ug/L	0.283	0.943	10.0
77-47-4	Hexachlorocyclopentadiene	U	9.43	ug/L	1.89	9.43	20.0

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level IV

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348W
Lab Sample ID: 186352001

Client: SSFL001
Date Collected: 05/17/2007 10:59
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: WATER

Client ID: FSQW0005E01
Batch ID: 635749
Run Date: 05/20/2007 19:41
Data File: s2e2112.d
Prep Batch: 635748
Prep Date: 05/19/2007 15:59

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3510C
Aliquot: 1060 mL

Prep Basis: As Received
SOP Ref: GL-OA-E-009
Instrument: MSD2.I
Dilution: 1
Prep SOP Ref: GL-OA-E-013
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
88-06-2	2,4,6-Trichlorophenol	U	9.43	ug/L	1.89	9.43	20.0
95-95-4	2,4,5-Trichlorophenol	U	9.43	ug/L	0.943	9.43	20.0
91-58-7	2-Chloronaphthalene	U	0.943	ug/L	0.330	0.943	10.0
88-74-4	2-Nitroaniline	U	9.43	ug/L	1.89	9.43	20.0
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	9.43	ug/L	1.89	9.43	20.0
	<i>m</i> -Nitroaniline						
131-11-3	Dimethyl phthalate	U	9.43	ug/L	1.89	9.43	10.0
	<i>Dimethylphthalate</i>						
606-20-2	2,6-Dinitrotoluene	U	9.43	ug/L	1.89	9.43	10.0
208-96-8	Acenaphthylene	U	0.943	ug/L	0.189	0.943	10.0
51-28-5	2,4-Dinitrophenol	U	18.9	ug/L	9.43	18.9	20.0
132-64-9	Dibenzofuran	U	9.43	ug/L	1.89	9.43	10.0
84-66-2	Diethyl phthalate	U	9.43	ug/L	1.89	9.43	10.0
	<i>Diethylphthalate</i>						
86-73-7	Fluorene	U	0.943	ug/L	0.189	0.943	10.0
7005-72-3	4-Chlorophenyl phenyl ether	U	9.43	ug/L	1.89	9.43	10.0
	<i>4-Chlorophenylphenylether</i>						
534-52-1	4,6-Dinitro-2-methylphenol	U	9.43	ug/L	2.83	9.43	20.0
	<i>2-Methyl-4,6-dinitrophenol</i>						
100-01-6	4-Nitroaniline	U	9.43	ug/L	2.83	9.43	20.0
	<i>p</i> -Nitroaniline						
122-39-4	Diphenylamine	U	9.43	ug/L	2.83	9.43	10.0
122-66-7	1,2-Diphenylhydrazine/Azobenzene	U	9.43	ug/L	1.89	9.43	20.0
	<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenyl phenyl ether	U	9.43	ug/L	1.89	9.43	10.0
	<i>4-Bromophenylphenylether</i>						
118-74-1	Hexachlorobenzene	U	9.43	ug/L	1.89	9.43	10.0
85-01-8	Phenanthrene	U	0.943	ug/L	0.189	0.943	10.0
120-12-7	Anthracene	U	0.943	ug/L	0.189	0.943	10.0
84-74-2	Di-n-butyl phthalate	U	9.43	ug/L	1.89	9.43	20.0
	<i>Di-n-butylphthalate</i>						
206-44-0	Fluoranthene	U	0.943	ug/L	0.189	0.943	10.0
92-87-5	Benzidine	U	9.43	ug/L	1.89	9.43	20.0
85-68-7	Butyl benzyl phthalate	U	9.43	ug/L	1.89	9.43	20.0
	<i>Butylbenzylphthalate</i>						
56-55-3	Benzo(a)anthracene	U	0.943	ug/L	0.189	0.943	10.0
91-94-1	3,3'-Dichlorobenzidine	U	9.43	ug/L	0.943	9.43	20.0
218-01-9	Chrysene	U	0.943	ug/L	0.189	0.943	10.0
117-81-7	Bis(2-ethylhexyl)phthalate	U	9.43	ug/L	1.89	9.43	50.0
	<i>bis(2-Ethylhexyl)phthalate</i>						
117-84-0	Di-n-octyl phthalate	U	9.43	ug/L	2.83	9.43	20.0
	<i>Di-n-octylphthalate</i>						
205-99-2	Benzo(b)fluoranthene	U	0.943	ug/L	0.189	0.943	10.0
207-08-9	Benzo(k)fluoranthene	U	0.943	ug/L	0.189	0.943	10.0

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level IV

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number: 186348W
Lab Sample ID: 186352001

Client: SSFL001
Date Collected: 05/17/2007 10:59
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: WATER

Client ID: FSQW0005E01
Batch ID: 635749
Run Date: 05/20/2007 19:41
Data File: s2e2112.d
Prep Batch: 635748
Prep Date: 05/19/2007 15:59

Method: SW846 8270C
Analyst: JMB3
Inj. Vol: .5 uL
Prep Method: SW846 3510C
Aliquot: 1060 mL

Prep Basis: As Received
SOP Ref: GL-OA-E-009
Instrument: MSD2.I
Dilution: 1
Prep SOP Ref: GL-OA-E-013
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
50-32-8	Benzo(a)pyrene	U	0.943	ug/L	0.189	0.943	10.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.943	ug/L	0.189	0.943	20.0
53-70-3	Dibenzo(a,h)anthracene	U	0.943	ug/L	0.189	0.943	20.0
191-24-2	Benzo(ghi)perylene	U	0.943	ug/L	0.189	0.943	10.0
120-82-1	1,2,4-Trichlorobenzene	U	9.43	ug/L	1.89	9.43	10.0

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
2-Fluorobiphenyl	37.6	47.2	ug/L	80	(41%-99%)
Nitrobenzene-d5	39.2	47.2	ug/L	83	(39%-99%)
p-Terphenyl-d14	37.2	47.2	ug/L	79	(41%-115%)
2,4,6-Tribromophenol	64.7	94.3	ug/L	69	(35%-107%)
2-Fluorophenol	39.9	94.3	ug/L	42	(15%-67%)
Phenol-d5	23.1	94.3	ug/L	25	(10%-53%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level IV

**Semi-Volatile
Tentatively Identified Compound
Sample Summary**

SDG Number: 186348W	Date Collected: 05/17/2007 10:59	Matrix: WATER
Lab Sample ID: 186352001	Date Received: 05/18/2007 10:30	
	Client: SSFL001	Project: SSFL00507
Client ID: FSQW0005E01	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 635749	Inst: MSD2.I	Dilution: 1
Run Date: 05/20/2007 19:41	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 05/19/2007 15:59	Aliquot: 1060 mL	Final Volume: 1 mL

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Concentration	Units	Fit	Qual
	Unknown <i>R45/B</i>	2.13	12.1	ug/L		1
	Unknown	3.23	7.91	ug/L		1
	Unknown	3.42	19.5	ug/L		1
	Unknown	3.5	8.46	ug/L		1
	Unknown	3.57	8.35	ug/L		1
4291-79-6	Cyclohexane, 1-methyl-2-propyl-	3.59	13.4	ug/L	80	N3

Am 6/4/07

Level X

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348005

Client: SSFL001
Date Collected: 05/17/2007 08:43
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8.4
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0084S01
Batch ID: 635778
Run Date: 05/22/2007 03:54
Data File: 021b2101.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Allquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl <i>u</i>	U	0.182	mg/kg	0.182	0.182	
84-15-1	o-Terphenyl	U	0.182	mg/kg	0.182	0.182	
92-94-4	p-Terphenyl <i>↓</i>	U	0.182	mg/kg	0.182	0.182	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.40	1.82	mg/kg	77	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348006

Client: SSFL001
Date Collected: 05/17/2007 08:46
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8

Client ID: FSBS0084S02
Batch ID: 635778
Run Date: 05/22/2007 04:33
Data File: 022b2201.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl <i>u</i>	U	0.181	mg/kg	0.181	0.181	
84-15-1	o-Terphenyl	U	0.181	mg/kg	0.181	0.181	
92-94-4	p-Terphenyl <i>↓</i>	U	0.181	mg/kg	0.181	0.181	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.37	1.81	mg/kg	76	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348010

Client: SSFL001
Date Collected: 05/17/2007 09:52
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 8.6
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085S01
Batch ID: 635778
Run Date: 05/22/2007 09:51
Data File: 031b3101.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parimname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl <i>u</i>	U	0.182	mg/kg	0.182	0.182	
84-15-1	o-Terphenyl	U	0.182	mg/kg	0.182	0.182	
92-94-4	p-Terphenyl <i>↓</i>	U	0.182	mg/kg	0.182	0.182	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.48	1.82	mg/kg	81	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348009

Client: SSFL001
Date Collected: 05/17/2007 09:52
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 9.7
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085D01
Batch ID: 635778
Run Date: 05/22/2007 09:12
Data File: 030b3001.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Allquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl <i>u</i>	U	0.185	mg/kg	0.185	0.185	
84-15-1	o-Terphenyl	U	0.185	mg/kg	0.185	0.185	
92-94-4	p-Terphenyl <i>↓</i>	U	0.185	mg/kg	0.185	0.185	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.32	1.85	mg/kg	71	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348011

Client: SSFL001
Date Collected: 05/17/2007 09:55
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 4.2
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0085S02
Batch ID: 635778
Run Date: 05/22/2007 10:29
Data File: 032b3201.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl	U	0.174	mg/kg	0.174	0.174	
84-15-1	o-Terphenyl	U	0.174	mg/kg	0.174	0.174	
92-94-4	p-Terphenyl	U	0.174	mg/kg	0.174	0.174	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstaene	1.52	1.74	mg/kg	88	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348007

Client: SSFL001
Date Collected: 05/17/2007 09:12
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 7.5

Client ID: FSBS0086S01
Batch ID: 635778
Run Date: 05/22/2007 07:57
Data File: 028b2801.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Allquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl	u	0.180	mg/kg	0.180	0.180	
84-15-1	o-Terphenyl	U	0.180	mg/kg	0.180	0.180	
92-94-4	p-Terphenyl	↓	0.180	mg/kg	0.180	0.180	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.33	1.80	mg/kg	74	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348008

Client: SSFL001
Date Collected: 05/17/2007 09:17
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 9.1

Client ID: FSBS0086S02
Batch ID: 635778
Run Date: 05/22/2007 08:34
Data File: 029b2901.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl <i>u</i>	U	0.183	mg/kg	0.183	0.183	
84-15-1	o-Terphenyl	U	0.183	mg/kg	0.183	0.183	
92-94-4	p-Terphenyl <i>↓</i>	U	0.183	mg/kg	0.183	0.183	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.32	1.83	mg/kg	72	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348013

Client: SSFL001
Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 5.9
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0087S01
Batch ID: 635778
Run Date: 05/22/2007 11:46
Data File: 034b3401.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
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EFHD (C12-C14)	EFH C12-C14 <i>EFH (>C11 - C14)</i> u	U	3.54	mg/kg	1.17	3.54	5.00
EFHD (C15-C20)	EFH C15-C20 <i>EFH (>C14 - C20)</i> u	U	3.54	mg/kg	1.17	3.54	5.00
EFHD (C21-C30)	EFH C21-C30 <i>EFH (>C20 - C30)</i>		10.2	mg/kg	1.17	3.54	5.00
EFHD (C8-C11)	EFH C8-C11 <i>EFH (C8 - C11)</i> u/B	BJ	1.85	mg/kg	1.17	3.54	5.00
92-06-8	m-Terphenyl u	U	0.177	mg/kg	0.177	0.177	
84-15-1	o-Terphenyl	U	0.177	mg/kg	0.177	0.177	
92-94-4	p-Terphenyl ↓	U	0.177	mg/kg	0.177	0.177	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
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5-alpha-Androstane	1.44	1.77	mg/kg	81	(50%-150%)
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Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level V

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348012

Client: SSFL001
Date Collected: 05/17/2007 10:25
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 7.3

Client ID: FSBS0087D01
Batch ID: 635778
Run Date: 05/22/2007 11:07
Data File: 033b3301.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
EFHD (C12-C14)	EFH C12-C14 <i>EFH (>C11 - C14) u</i>	U	3.60	mg/kg	1.19	3.60	5.00
EFHD (C15-C20)	EFH C15-C20 <i>EFH (>C14 - C20) u</i>	U	3.60	mg/kg	1.19	3.60	5.00
EFHD (C21-C30)	EFH C21-C30 <i>EFH (>C20 - C30)</i>		5.70	mg/kg	1.19	3.60	5.00
EFHD (C8-C11)	EFH C8-C11 <i>EFH (C8 - C11) u/B</i>	BJ	1.49	mg/kg	1.19	3.60	5.00
92-06-8	m-Terphenyl <i>u</i>	U	0.180	mg/kg	0.180	0.180	
84-15-1	o-Terphenyl <i>u</i>	U	0.180	mg/kg	0.180	0.180	
92-94-4	p-Terphenyl <i>u</i>	U	0.180	mg/kg	0.180	0.180	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.41	1.80	mg/kg	78	(50%-150%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

level II

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348014

Client: SSFL001
Date Collected: 05/17/2007 10:31
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 16.2

Client ID: FSBS0087S02
Batch ID: 635778
Run Date: 05/22/2007 12:23
Data File: 035b3501.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
EFHD (C12-C14)	EFH C12-C14 <i>EFH (>C11 - C14)</i> U	U	3.98	mg/kg	1.31	3.98	5.00
EFHD (C15-C20)	EFH C15-C20 <i>EFH (>C14 - C20)</i> J	J	2.60	mg/kg	1.31	3.98	5.00
EFHD (C21-C30)	EFH C21-C30 <i>EFH (>C20 - C30)</i>		31.7	mg/kg	1.31	3.98	5.00
EFHD (C8-C11)	EFH C8-C11 <i>EFH (C8 - C11)</i> U/B	BJ	1.71	mg/kg	1.31	3.98	5.00
92-06-8	m-Terphenyl U	U	0.199	mg/kg	0.199	0.199	
84-15-1	o-Terphenyl J	U	0.199	mg/kg	0.199	0.199	
92-94-4	p-Terphenyl J	U	0.199	mg/kg	0.199	0.199	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.73	1.99	mg/kg	87	(50%-150%)

Comments:

- B** For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level V

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348002

Client: SSFL001
Date Collected: 05/17/2007 07:26
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 6

Client ID: FSBS0092S01
Batch ID: 635778
Run Date: 05/22/2007 05:48
Data File: 024b2401.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl	U	0.177	mg/kg	0.177	0.177	
84-15-1	o-Terphenyl	U	0.177	mg/kg	0.177	0.177	
92-94-4	p-Terphenyl	U	0.177	mg/kg	0.177	0.177	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.44	1.77	mg/kg	81	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level II

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348001

Client: SSFL001
Date Collected: 05/17/2007 07:26
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 6.3

Client ID: FSBS0092D01
Batch ID: 635778
Run Date: 05/22/2007 05:10
Data File: 023b2301.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
02-06-8	m-Terphenyl <i>u</i>	U	0.178	mg/kg	0.178	0.178	
04-15-1	o-Terphenyl	U	0.178	mg/kg	0.178	0.178	
02-94-4	p-Terphenyl <i>↓</i>	U	0.178	mg/kg	0.178	0.178	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.28	1.78	mg/kg	72	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level V

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348003

Client: SSFL001
Date Collected: 05/17/2007 07:46
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 6.5

Client ID: FSBS0092S02
Batch ID: 635778
Run Date: 05/22/2007 02:39
Data File: 019b1901.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl	U	0.178	mg/kg	0.178	0.178	
84-15-1	o-Terphenyl	U	0.178	mg/kg	0.178	0.178	
92-94-4	p-Terphenyl	U	0.178	mg/kg	0.178	0.178	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.32	1.78	mg/kg	74	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348004

Client: SSFL001
Date Collected: 05/17/2007 07:57
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 3
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0093S01
Batch ID: 635778
Run Date: 05/22/2007 03:17
Data File: 020b2001.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
92-06-8	m-Terphenyl	u	0.172	mg/kg	0.172	0.172	
84-15-1	o-Terphenyl	U	0.172	mg/kg	0.172	0.172	
92-94-4	p-Terphenyl	↓	0.172	mg/kg	0.172	0.172	

Surrogate/Tracer recovery	Result	Nomnal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.32	1.72	mg/kg	77	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level V

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348S
Lab Sample ID: 186348015

Client: SSFL001
Date Collected: 05/17/2007 11:29
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: SOIL
%Moisture: 3.7
Prep Basis: Dry Weight
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-010
Final Volume: 1 mL

Client ID: FSBS0007AS01
Batch ID: 635778
Run Date: 05/22/2007 15:10
Data File: 040b4001.d
Prep Batch: 635777
Prep Date: 05/21/2007 10:30

Method: SW846 8015A/B SVOC
Analyst: JAOC
Prep Method: SW846 3550B
Aliquot: 30 g

CAS No.	Parmname	Qual	Result	Units	MDL/LOD	PQL/LOQ	RDL
EFHD (C12-C14)	EFH C12-C14 <i>u</i> EFH (>C11 - C14)	U	3.46	mg/kg	1.14	3.46	5.00
EFHD (C15-C20)	EFH C15-C20 <i>J</i> EFH (>C14 - C20)	J	1.64	mg/kg	1.14	3.46	5.00
EFHD (C21-C30)	EFH C21-C30 EFH (>C20 - C30)		8.10	mg/kg	1.14	3.46	5.00
EFHD (C8-C11)	EFH C8-C11 <i>WB</i> EFH (C8 - C11)	BJ	1.70	mg/kg	1.14	3.46	5.00
92-06-8	m-Terphenyl <i>u</i>	U	0.173	mg/kg	0.173	0.173	
84-15-1	o-Terphenyl	U	0.173	mg/kg	0.173	0.173	
92-94-4	p-Terphenyl <i>↓</i>	U	0.173	mg/kg	0.173	0.173	

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	1.34	1.73	mg/kg	78	(50%-150%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Level I

**Flame Ionization Detector
Certificate of Analysis
Sample Summary**

SDG Number: 186348W
Lab Sample ID: 186352001

Client: SSFL001
Date Collected: 05/17/2007 10:59
Date Received: 05/18/2007 10:30

Project: SSFL00507
Matrix: WATER

Client ID: FSQW0005E01
Batch ID: 635941
Run Date: 05/22/2007 22:07
Data File: 052b5201.d
Prep Batch: 635940
Prep Date: 05/21/2007 21:25

Method: SW846 8015A/B SVOC
Analyst: JAOC
Aliquot: 1120 mL
Prep Method: SW846 3510C
Aliquot: 1120 mL

Prep Basis: As Received
SOP Ref: GL-OA-E-003
Instrument: FID4A.I
Dilution: 1
Prep SOP Ref: GL-OA-E-013
Final Volume: 1 mL

CAS No.	Parname	Qual	Result	Units	MDL/LOD	PQL/LOQ
92-06-8	m-Terphenyl <i>u</i>	U	0.00446	mg/L	0.00446	0.00446
84-15-1	o-Terphenyl	U	0.00446	mg/L	0.00446	0.00446
92-94-4	p-Terphenyl <i>↓</i>	U	0.00446	mg/L	0.00446	0.00446

Surrogate/Tracer recovery	Result	Nominal	Units	Recovery%	Acceptable Limits
5-alpha-Androstane	0.0303	0.0446	mg/L	68	(50%-150%)

Comments:

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

level V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECx, LLC
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Report Date: May 22, 2007

Client Sample ID: FSBS0092D01
Sample ID: 186348001
Matrix: SOIL
Collect Date: 17-MAY-07 07:26
Receive Date: 18-MAY-07
Collector: Client
Moisture: 6.27%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
<i>EPA300.0 Fluoride in Soil</i>										
Fluoride	J/Q	1.10	0.309	5.00	mg/kg	1	RXM105/21/07	1111	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECx, LLC
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Report Date: May 22, 2007

Client Sample ID: FSBS0092S01
Sample ID: 186348002
Matrix: SOIL
Collect Date: 17-MAY-07 07:26
Receive Date: 18-MAY-07
Collector: Client
Moisture: 6%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Soil											
Fluoride	J/Q	2.10	0.315	5.00	mg/kg	1	RXM1	05/21/07	1132	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

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Certificate of Analysis

Company : MECx, LLC
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Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Report Date: May 22, 2007

Client Sample ID: FSBS0092S02
Sample ID: 186348003
Matrix: SOIL
Collect Date: 17-MAY-07 07:46
Receive Date: 18-MAY-07
Collector: Client
Moisture: 6.55%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
<i>EPA300.0 Fluoride in Soil</i>										
Fluoride	J/Q	2.02	0.318	5.00	mg/kg	1	RXM1 05/21/07	1152	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

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Aurora, Colorado 80014

Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID: FSBS0093S01
Sample ID: 186348004
Matrix: SOIL
Collect Date: 17-MAY-07 07:57
Receive Date: 18-MAY-07
Collector: Client
Moisture: 2.99%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Ion Chromatography

EPA300.0 Fluoride in Soil

Fluoride	J/Q	0.819	0.307	5.00	mg/kg	1	RXM1	05/21/07	1314	635930	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

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Company : MECx, LLC
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Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0084S01
Sample ID: 186348005
Matrix: SOIL
Collect Date: 17-MAY-07 08:43
Receive Date: 18-MAY-07
Collector: Client
Moisture: 8.39%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
<i>EPA300.0 Fluoride in Soil</i>											
Fluoride	J/Q	1.23	0.323	5.00	mg/kg	1	RXM1	05/21/07	1334	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

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Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0084S02
Sample ID: 186348006
Matrix: SOIL
Collect Date: 17-MAY-07 08:46
Receive Date: 18-MAY-07
Collector: Client
Moisture: 8.04%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Soil Fluoride <i>J/Q</i>	J	2.26	0.326	5.00	mg/kg	1	RXM1	05/21/07	1435	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

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Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0086S01
Sample ID: 186348007
Matrix: SOIL
Collect Date: 17-MAY-07 09:12
Receive Date: 18-MAY-07
Collector: Client
Moisture: 7.49%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Soil											
Fluoride	J/Q	2.08	0.322	5.00	mg/kg	1	RXM1	05/21/07	1455	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

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Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0086S02
Sample ID: 186348008
Matrix: SOIL
Collect Date: 17-MAY-07 09:17
Receive Date: 18-MAY-07
Collector: Client
Moisture: 9.11%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
<i>EPA300.0 Fluoride in Soil</i>											
Fluoride	J/Q	4.26	0.327	5.00	mg/kg	1	RXM1	05/21/07	1516	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

GEL LABORATORIES LLC

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Certificate of Analysis

Company : MECx, LLC
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Aurora, Colorado 80014

Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0085D01
Sample ID: 186348009
Matrix: SOIL
Collect Date: 17-MAY-07 09:52
Receive Date: 18-MAY-07
Collector: Client
Moisture: 9.73%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
<i>EPA300.0 Fluoride in Soil</i>										
Fluoride	J/Q	2.32	0.317	5.00	mg/kg	1	RXM105/21/07	1536	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

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Certificate of Analysis

Company : MECx, LLC
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Aurora, Colorado 80014

Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0085S01
Sample ID: 186348010
Matrix: SOIL
Collect Date: 17-MAY-07 09:52
Receive Date: 18-MAY-07
Collector: Client
Moisture: 8.63%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
EPA300.0 Fluoride in Soil Fluoride J/Q	J	2.48	0.326	5.00	mg/kg	1	RXM105/21/07	1556	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

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Company : MECx, LLC
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Aurora, Colorado 80014.

Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0085S02
Sample ID: 186348011
Matrix: SOIL
Collect Date: 17-MAY-07 09:55
Receive Date: 18-MAY-07
Collector: Client
Moisture: 4.2%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
<i>EPA300.0 Fluoride in Soil</i>										
Fluoride	J	1.43	0.309	5.00	mg/kg	1	RXM105/21/07	1617	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

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Company : MECx, LLC
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Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: SSFL Group 8 Hastings Data Gap Sampling

Client Sample ID: FSBS0087D01
Sample ID: 186348012
Matrix: SOIL
Collect Date: 17-MAY-07 10:25
Receive Date: 18-MAY-07
Collector: Client
Moisture: 7.34%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
EPA300.0 Fluoride in Soil										
Fluoride	J	2.34	0.313	5.00	mg/kg	1	RXM105/21/07	1637	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECx, LLC
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Report Date: May 22, 2007

Client Sample ID: FSBS0087S01
Sample ID: 186348013
Matrix: SOIL
Collect Date: 17-MAY-07 10:25
Receive Date: 18-MAY-07
Collector: Client
Moisture: 5.9%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
<i>EPA300.0 Fluoride in Soil</i>										
Fluoride	J	2.08	0.315	5.00	mg/kg	1	RXM105/21/07	1657	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : MECx, LLC
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Report Date: May 22, 2007

Client Sample ID: FSBS0087S02
Sample ID: 186348014
Matrix: SOIL
Collect Date: 17-MAY-07 10:31
Receive Date: 18-MAY-07
Collector: Client
Moisture: 16.2%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
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Ion Chromatography

EPA300.0 Fluoride in Soil

Fluoride	J/Q	1.66	0.356	5.00	mg/kg	1	RXM105/21/07	1718	635930	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL U

GEL LABORATORIES LLC

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Certificate of Analysis

Company : MECx, LLC
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Report Date: May 22, 2007

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Client Sample ID: FSBS0007AS01
Sample ID: 186348015
Matrix: SOIL
Collect Date: 17-MAY-07 11:29
Receive Date: 18-MAY-07
Collector: Client
Moisture: 3.67%

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
<i>EPA300.0 Fluoride in Soil</i>											
Fluoride	J/Q	5.69	0.309	5.00	mg/kg	1	RXM1	05/21/07	1819	635930	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RXM1	05/21/07	0735	635929

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V

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Certificate of Analysis

Company : MECx, LLC
Address : 12269 East Vassar Drive
Aurora, Colorado 80014

Contact: Ms. Elizabeth Wessling, MECx
Project: **SSFL Group 8 Hastings Data Gap Sampling**

Report Date: May 21, 2007

Client Sample ID: FSQW0005E01
Sample ID: 186352001
Matrix: WATER
Collect Date: 17-MAY-07 10:59
Receive Date: 18-MAY-07
Collector: Client

Project: SSFL00507
Client ID: SSFL001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
EPA300.0 Fluoride in Liquid Fluoride	U	0.00	0.033	0.500	mg/L	1	RXM105/19/07	1134	635705	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	

LEVEL V